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NAVMC DIRECTIVE 3500.107

From: Commandant of the Marine Corps  
To: Distribution List

Subj: FA-18 TRAINING AND READINESS (T&R) MANUAL

Ref: (a) NAVMC DIR 3500.14

Encl: (1) FA-18 T&R Manual

1. PURPOSE. To revise training standards and regulations regarding the training of FA-18 aircrew per the reference.

2. CANCELLATION. MCO 3500.46

3. INFORMATION

a. The purpose of this revision is to align FA-18 training standards with Aviation T&R Program Manual regulations per the reference, and to fine-tune core model table construction with Deputy Commandant Aviation's vision to report training level readiness via the T&R core model.

b. Recommended changes to this directive are invited, and will be submitted via the syllabus sponsor and the appropriate chain of command to the Commanding General, Training and Education Command, Aviation Training Branch via e-mail (refer to [http://www.tecom.usmc.mil/atb/contacts\\_.htm](http://www.tecom.usmc.mil/atb/contacts_.htm)) or the Defense Message System using the following plain language address:  
CG TECOM QUANTICO VA ATB.

4. SCOPE. FA-18 aircrew will train to the standards and programs of instruction contained in the enclosure.

5. COMMAND. This directive is applicable to the Marine Corps Total Force.

DISTRIBUTION STATEMENT A: Approved for public release; distribution is unlimited.

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25 May 06

6. CERTIFICATION. This directive is reviewed and approved this date.



K. J. STALDER  
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FA-18A/C/D T&R MANUAL

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**\* \* NOTE \* \***

CREW RESOURCE MANAGEMENT (CRM) AND OPERATIONAL RISK MANAGEMENT (ORM) FACTORS  
SHALL BE BRIEFED ON ALL FLIGHTS AND/OR EVENTS.

100. MARINE FIGHTER ATTACK SQUADRON (FA-18A/C) UNIT TEMPLATE, MISSION STATEMENT, UNIT CORE CAPABILITY, UNIT CORE COMPETENCY. Marine Aviation plays a crucial role in the MAGTF's ability to conduct Maneuver Warfare. The ultimate goal of Marine Aviation is to attain the highest possible combat readiness to support Expeditionary Maneuver Warfare while at the same time preserving and conserving our Marines and equipment. Embedded within our combat readiness is the ability to rapidly, effectively, and efficiently deploy on short notice and the ability to quickly and effectively plan for crises and/or contingency operations thereby ensuring Marine Aviation remains ready for combat when and where the need arises. The FA-18 T&R Manual represents the collaborative effort of FA-18 Subject Matter Experts who designed training standards to maximize the full combat capabilities of the FA-18 and its crew. These standards, intrinsic in the core competency section, describe and define unit capabilities and requirements necessary to maintain like-squadron proficiency in core skills and combat leadership. Training events are based on specific requirements and performance standards to ensure aircrew maintain a common base of training and depth of combat capabilities. Together, the T&R comprises a building block approach to ensure that trained aircrews remain ready, relevant, and fully capable of supporting the MAGTF commander.

1. VMFA Mission. Support the MAGTF Commander by destroying surface targets and enemy aircraft, day or night under all weather conditions during expeditionary, joint or combined operations.

2. Mission Essential Task List (METL)

- a. (UJTL TA 1.1.4) Conduct Sea and Air Deployment Operations
  - Maintain the capability to deploy and operate from naval shipping, advanced bases, and expeditionary airfields.
  - Maintain the capability to conduct extended range operations employing aerial refueling.
  - Perform organizational maintenance on assigned aircraft.
- b. (UJTL TA 3.2.1) Conduct Fire Support
  - Conduct Offensive Anti-Air Warfare.
  - Conduct Offensive Air Support.
- c. (UJTL TA 3.2.2) Conduct Close Air Support
  - Conduct escort of friendly ground forces.
  - Conduct Assault Support Escort.
- d. (UJTL TA 3.2.3) Conduct Interdiction Operations
  - Conduct armed reconnaissance.
  - Conduct Strike Coordination and Reconnaissance (SCAR).
- e. (UJTL TA 3.2.4) Conduct Joint Suppression of Enemy Air Defenses
- f. (UJTL TA 3.2.8) Conduct Air to Air Operations
  - Conduct Anti-Air Warfare.
  - Intercept and destroy enemy aircraft in conjunction with ground or airborne fighter control under all weather conditions.
  - Conduct self escort and escort of friendly aircraft and ground forces.
- g. (UJTL TA 3.3) Coordinate Battlespace Maneuver and Integrate with Firepower.
  - Conduct combined arms coordination and control operations.

3. Table of Organization. Refer to Table of Organization 8830 managed by Total Force Structure, MCCDC, for current authorized organizational structure and personnel strength for FA-18A/C units. As of this publication date, FA-18A/C units are authorized:

Squadron  
12 aircraft  
19 Pilots

4. Core Capability. A core capable squadron is able to sustain 20 sorties on a daily basis during contingency/combat operations. The above sortie rates are based on a 1.4 hour average sortie duration and assumes 70 percent FMC aircraft and 90 percent T/O aircrew on hand. If unit FMC aircraft < 70 percent or T/O aircrew < 90 percent, core capability will be degraded by a like percentage. A core capable squadron is able to accomplish all tasks designated in the unit METL from a main base, expeditionary base, or carrier.

5. METL/Core Skill Matrix. FA-18A/C core/core plus skills directly support the METL as follows:

METL	CORE SKILLS											
	FAM	AAR	AS	NS	AA	LAT	CAS	AR	SCAR	AAW	SEAD	AI
a. Conduct Sea and Air Deployment Ops	X	X		X								
b. Conduct Fire Support	X	X	X	X	X	X	X	X	X	X	X	X
c. Conduct Close Air Support	X	X	X	X		X	X					
d. Conduct Interdiction Operations	X	X	X	X		X		X	X			
e. Conduct Joint Suppression of Enemy Air Defenses	X	X	X	X			X				X	X
f. Conduct Air to Air Operations	X	X		X	X					X		X
g. Coordinate battlespace maneuver	X	X		X								

CORE PLUS SKILLS

METL	E/CQ	WAS	NS	ESC	AAW	LFE	FAC (A)
a. Conduct Sea and Air Deployment Ops	X	X	X				
b. Conduct Fire Support		X	X		X	X	X
c. Conduct Close Air Support			X	X			X
d. Conduct Interdiction Operations		X	X				
e. Conduct Joint Suppression of Enemy Air Defenses			X			X	
f. Conduct Air to Air Operations			X		X	X	
g. Coordinate battlespace maneuver			X				X

6. FA-18A/C Core Model Minimum Requirements (CMMR). CMMR is measured in terms of the minimum numbers of core skill proficient crews and minimum numbers of combat leaders per paragraphs a and b below:

a. Minimum Unit CSP Requirements. As a minimum, in order to be considered Core Competent, a unit must possess the following numbers of crews who are proficient in each core skill (Unit CSP).

CORE SKILL *CORE PLUS	FA-18A/C Unit CSP Requirements Pilots
FAM	12
AAR	12
AS	12
NS	12
AA	12
LAT	8
CAS	12
AR	12
SCAR	10
AAW	10
SEAD	6
AI	10
EC/Q* <sup>1</sup>	12
WAS* <sup>1</sup>	12
NS LOW*	6
ESC*	8
AAW*	4
LFE*	8
FAC (A) *	2

\* NOTE: Proficiency in core plus skills is not required to obtain unit CSP.

E/CQ and WAS are considered core plus for all squadrons not assigned to a carrier air wing (CVW). For CVW integrated squadrons, E/CQ and WAS become core skills from the beginning of the first at-sea training evolution of the applicable Fleet Response Training Program (FRTTP) and cycled to 30 days post-deployment or the last day of the FRTTP post-deployment sustainment period, whichever is later.

b. A standard FA-18A/C crew consists of 1 pilot. In order to be considered proficient in a core skill, an individual must attain and maintain proficiency in core skill events as delineated in (1) and (2) below.

(1) Events Required to Attain Individual CSP. To initially attain CSP in a core skill, a pilot must simultaneously have a proficient status in all of the core (200-300) T&R events listed in the table below for that core skill:

Individual CSP Attain Table												
	Skills						Missions					
FA-18A/C Pilot/WSO	FAM	AAR	AS	NS	AA	LAT	CAS	AR	SCAR	AAW	SEAD	AI
T&R event requirements to attain CSP	S200R	210R	S230	S250	260R	S280	S290R	310R	320R	S330R	S340R	S350R
	201R	211R	S231	251R	261R	281R	291R	311R	321R	331R	S341R	351R
	202R		S232	252	262R	282	292R	312R		332R	342R	352R
			S233	253R	263R		S300			333R		353R
			S234	254	S264		301R			334R		354R
			235R		265R		302R			S335R		
			236R		S266		303			336R		
			237R		S267R					337R		
			238R		268R					338R		
			239R		269R							
			240		270							
			241									
			242R									
			243R									
R=Refresher POI event S=Event conducted in simulator												



(2) Events Required to Maintain Individual CSP. To maintain CSP, a pilot must maintain proficiency in all of the T&R events listed in the chart below for that core skill.

Individual CSP Maintain Table												
	Skills						Missions					
FA-18A/C Pilot	FAM	AAR	AS	NS	AA	LAT	CAS	AR	SCAR	AAW	SEAD	AI
T&R event requirements to maintain CSP	S200R 202R	211R	237R 239R 243R	251R	260R 261R 262R 263R 265R	281R	292R 301R 302R	310R 311R 312R	320R 321R	S330R 331R 332R 333R 334R S335R 336R 337R 338R	S340R S341R 342R	S350R 351R 352R 353R 354R
R=Refresher POI event S=Event conducted in simulator												

(3) Events Required to Attain Individual Proficiency in Core Plus Skills. Proficiency in Core Plus Skills is not required to obtain unit CSP. Training to Core Plus Skills is at the discretion of the unit commanding officer. To initially attain proficiency in a Core Plus Skill, an individual must simultaneously have a 'proficient' status in all of the T&R events listed in the table below for that Core Plus Skill:

Individual Core Plus Skills Attain Table								
FA-18A/C Pilot	E/CQ	WAS	NS	ESCORT	AAW	LFE	FAC (A)	
T&R event requirements to attain Core Plus Skill proficiency	S400R 401R 402R 403R 404R	410R 411R 412R	430 431 432R	440R 441R	450R	470R 471R	S480 S481 482 483R 484 485 486 487R 488R 489R 490R 495	

(4) Events Required to Maintain Individual Proficiency in Core Plus Skills. To maintain proficiency in a core plus skill, an individual must maintain proficiency in all of the T&R events listed in the table below for that core plus skill:

R=Refresher POI event S=Event conducted in simulator							
Individual Core Plus Skills Maintain Table							
FA-18A/C Pilot	E/CQ	WAS	NS	ESCORT	AAW	LFE	FAC (A)
T&R event requirements to maintain CSP	401R 402R 403R 404R	411R 412R	432R	440R 441R	450R	471R	483R 487R 489R 490R
R=Refresher POI event S=Event conducted in simulator							

c. Minimum Combat Leader Requirements. At a minimum, in order to be considered Core Competent, a squadron must possess the following numbers of pilots with the listed flight leadership designations.

FA-18A/C	
FLT LD DESG	SQDN PILOTS
MSN CMDR	4
DIV LDR	6
SEC LDR	10

## 7. Qualifications And Designations

a. Qualification. A status assigned to personnel based on demonstration of proficiency in a specific skill. Specific criteria to achieve a qualification is delineated in this T&R manual. Upon successful completion of qualification criteria, commanding officers may issue an appropriate qualification letter for inclusion in the NATOPS jacket and APR. Aircrew do not lose a qualification as a function of refly factor for individual events. Loss of proficiency (delinquent refly factor) for all associated qualification events (events with measurable refly factor; '\*' refly factor events excluded) constitutes loss of that qualification. Re-qualification requires demonstration of proficiency. Re-qualification shall be achieved by successfully re-completing all R-coded events associated with the respective qualification listed in the FA-18A/C/D training tables (unless waived per paragraph 305 of the Aviation T&R Program Manual).

b. Designation. A status assigned to an individual based on leadership ability. A designation is a command specific, one-time occurrence and remains in effect until removed for cause. Specific designation requirements are delineated in the following tables. Commanders shall issue a designation letter to the individual upon the occasion of original designation, with appropriate copies for inclusion in the NATOPS jacket and APR.

c. Qualifications And Designations Tables. The tables below delineate the T&R events required to be completed to attain initial qualifications, to re-qualify, and to attain designations. All stage lectures, briefs, squadron training and prerequisites shall be complete prior to completing final events. Qualification and designation letters signed by the commanding officer shall be placed in the NATOPS and APR jackets.

<b>Qualification</b> (TRACKING CODE)	<b>Initial Event Qualification Requirements</b>
NATOPS (600E)	IAW OPNAV 3710.7 and an annual qualification letter signed by the commanding officer.
INST (601E)	IAW OPNAV 3710.7 and an annual qualification letter signed by the commanding officer.
LAT QUAL (610E)	S280, 281, 282R
E/CQ (611/612)	S400R, 401R, 402R, 403R, 404R
ACM QUAL (613E)	260R, 261R, 262R, 263R, S264, 265R, S266, S267R, 268R, 269R, 270
NS QUAL (HI) (615E)	S250, 251R, 252, 253R, 254
NS QUAL (Low) (616E)	430, 431, 432R
FAC (A) (614E)	S480, S481, 482, 483R, 484, 485, 486, 487R, 488R, 489R, 490R

Designation (TRACKING CODE)	Designation Requirements
PMCF (619E)	IAW OPNAV 3710.7 and a designation letter signed by the commanding officer
SECTION LEAD (631E)	620E, 621E, 622E, 623E, 624E, S625E, S626E, 627E, 628E, 629E, 630E, 631ER. The prospective section lead shall be complete with all 200 and 300 level sorties prior to beginning section lead workup.
DIVISION LEAD (644E)	640E, 641E, 642E, 643E, 644ER
MISSION COMMANDER (652E)	650E, 651E, 652ER
LAT (I) (513E)	IAW the MAWTS-1/NSAWC Course Catalog. * NSI (High) or NSI (Low) per MAWTS-1 Course Catalog.
ACT (I) (522E)	
NS (I) * (532E)	
FAC (A) (I) (542E)	
TOPGUN (660)	
MDTC (661)	
WTI (662)	

d. Instructor Requirements. A squadron should possess the following number of pilots with the listed instructor designations IAW MCO 3500.12 (WTPP). NSI in the following matrix refers to NSI (Low) for squadrons that are NS (Low) capable (lot XII and above aircraft), and NSI (High) for non-NS (Low) capable squadrons (lot XI and below aircraft). The squadron CO/XO instructor designations shall not count toward the following numbers:

FA-18A/C	
INSTRUCTOR DESIGNATION	SQDN Pilots
LATI	3
NSI	3
ACTI	4
FAC (A) I	1
WTI	2
LSO	3
MDTC/TOPGUN	2

## 8. Currency and Proficiency

a. Currency. A control measure used to provide an additional margin of safety based on exposure frequency to a particular skill. It is a measure of time since the last event demanding that specific skill. Loss of currency does not affect a loss of Combat Readiness Percentage (CRP). For example, currency determines minimum altitudes in rules of conduct based upon the most recent low altitude fly date. Specific currency requirements for individual type mission profiles can be found in the Aviation T&R Program Manual.

b. Proficiency. A measure of achievement of a specific skill. Refly factors establish the maximum time between demonstration of those particular skills. If an aircrew exceeds the refly factor for a particular event, the individual loses proficiency status for that particular event. To regain proficiency, an individual shall complete the delinquent event with a proficient flight lead. For additional requirements concerning regaining proficiency, refer to the Aviation T&R Program Manual.

9. Core Progression Model. The FA-18A/C Core Progression Model is depicted as follows:

# FA-18A/C CORE PROGRESSION MODEL

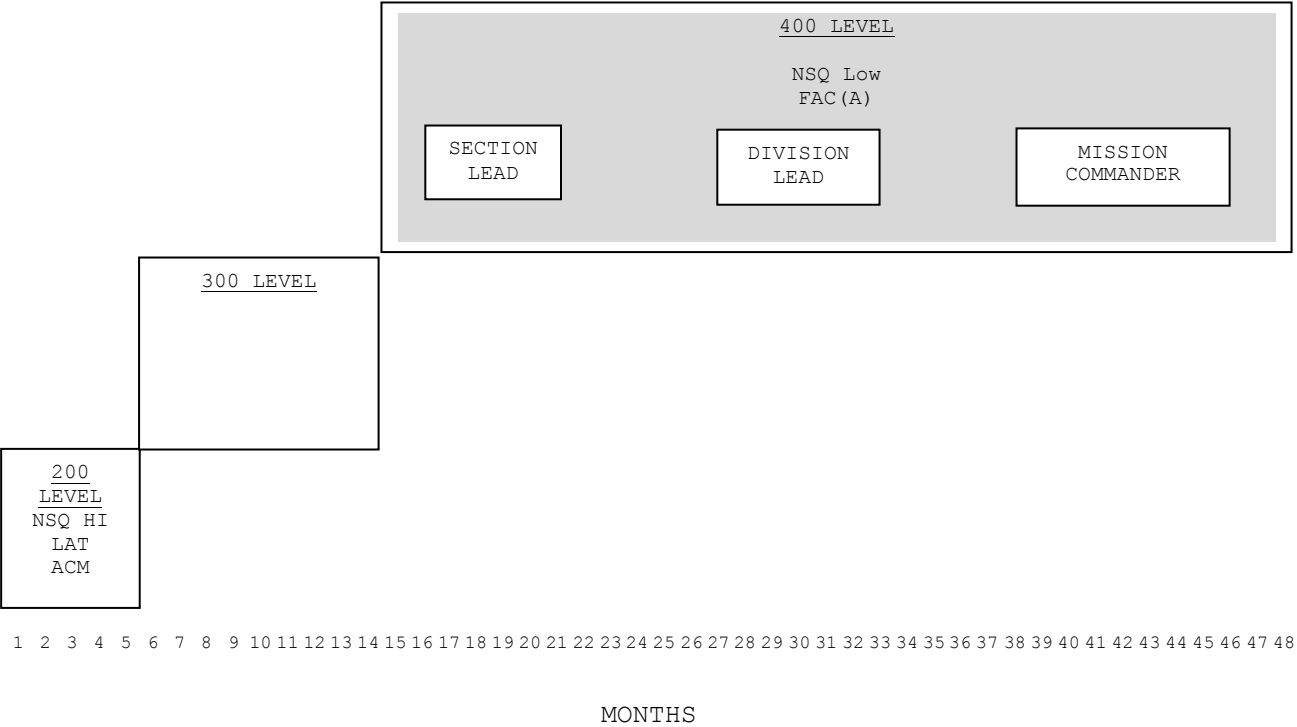


Figure 1.--FA-18A/C Core Progression Model.

101. MARINE FIGHTER ATTACK SQUADRON (ALL WEATHER) (FA-18D) UNIT TEMPLATE,  
MISSION STATEMENT, UNIT CORE CAPABILITY, UNIT CORE COMPETENCY

1. VMFA(AW) Mission. Support the MAGTF Commander by providing supporting arms coordination, conducting multi-sensor imagery reconnaissance, and destroying surface targets and enemy aircraft day or night under all weather conditions during expeditionary, joint, or combined operations.

2. Mission Essential Task List (METL)

- a. (UJTL TA 1.1.4) Conduct Sea and Air Deployment Operations.
  - Maintain the capability to deploy and operate from naval shipping, advanced bases, and expeditionary airfields.
  - Maintain the capability to conduct extended range operations employing aerial refueling.
  - Perform organizational maintenance on assigned aircraft.
- b. (UJTL TA 2) Develop Intelligence.
  - Conduct Multi-sensor Imagery, visual reconnaissance, and provide battlefield damage assessment.
- c. (UJTL TA 3.2.1) Conduct Fire Support.
  - Conduct Offensive Anti-Air Warfare.
  - Conduct Offensive Air Support.
- d. (UJTL TA 3.2.2) Conduct Close Air Support.
  - Conduct escort of friendly ground forces.
  - Conduct Assault Support Escort.
- e. (UJTL TA 3.2.3) Conduct Interdiction Operations.
  - Conduct armed reconnaissance.
  - Conduct Strike Coordination and Reconnaissance (SCAR).
- f. (UJTL TA 3.2.4) Conduct Joint Suppression of Enemy Air Defenses.
- g. (UJTL TA 3.2.8) Conduct Air to Air Operations.
  - Conduct Anti-Air Warfare.
  - Intercept and destroy enemy aircraft in conjunction with ground or airborne fighter control under all weather conditions.
  - Conduct self escort and escort of friendly aircraft and ground forces.
- h. (UJTL TA 3.3) Coordinate Battlespace Maneuver and Integrate with Firepower.
  - Conduct combined arms coordination and control operations.
  - Conduct Tactical Recovery of Aircraft and Personnel (TRAP) operations.

3. Table of Organization. Refer to Table of Organization 8840 managed by Total Force Structure, MCCDC, for current authorized organizational structure and personnel strength for FA-18D units. As of this publication date, FA-18D units are authorized:

FA-18D Squadron  
12 aircraft  
19 Pilots  
19 WSOs

4. Core Capability. A core capable squadron is able to sustain 20 sorties on a daily basis during contingency/combat operations. The above sortie rates are based on a 1.4 hour average sortie duration and assumes 70 percent FMC aircraft and 90 percent T/O aircrew on hand. If unit FMC aircraft < 70 percent or T/O aircrew < 90 percent, core capability will be degraded by a like percentage. A core capable squadron is able to accomplish all tasks designated in the unit METL from a main base, expeditionary base or aircraft carrier.

5. METL/Core Skill Matrix. FA-18D core/core plus skills directly support the METL as follows:

METL	CORE SKILLS													
	FAM	AAR	AS	NS	AA	LAT	CAS	AR	SCAR	AAW	SEAD	AI	FAC (A)	TAC (A)
a. Conduct Sea and Air Deployment Ops	X	X		X										
b. Develop Intelligence		X		X									X	X
c. Conduct Fire Support	X	X	X	X	X	X	X	X	X	X	X	X	X	X
d. Conduct Close Air Support	X	X	X	X		X	X						X	X
e. Conduct Interdiction Operations	X	X	X	X		X		X	X					
f. Conduct Joint Suppression of Enemy Air Defenses	X	X	X	X			X				X	X		
g. Conduct Air to Air Operations	X	X		X	X					X		X		
h. Coordinate battlespace maneuver	X	X		X									X	X

CORE PLUS SKILLS

METL	E/CQ	NS	ESC	AAW	LFE	FAC (A)	TAR
a. Conduct Sea and Air Deployment Ops	X	X					
b. Develop Intelligence		X				X	X
c. Conduct Fire Support		X		X	X	X	
d. Conduct Close Air Support		X	X			X	
e. Conduct Interdiction Operations		X					
f. Conduct Joint Suppression of Enemy Air Defenses		X			X		
g. Conduct Air to Air Operations		X		X	X		
h. Coordinate battlespace maneuver		X				X	

6. FA-18D Core Model Minimum Requirements (CMMR). CMMR is measured in terms of the minimum numbers of core skill proficient crews and minimum numbers of combat leaders per paragraphs a and b below:

a. Minimum Unit CSP Requirements. As a minimum, in order to be considered Core Competent, a unit must possess the following numbers of crews who are proficient in each core skill (Unit CSP).

	FA-18D Unit CSP Requirements		
CORE SKILL *CORE PLUS	Pilots	WSOs	Crews
FAM	12	12	12
AAR	12	12	12
AS	12	12	12
NS	12	12	12
AA	12	12	12
LAT	8	8	8
CAS	12	12	12
AR	12	12	12
SCAR	10	10	10
AAW	10	10	10
SEAD	6	6	6
AI	10	10	10
FAC (A)	8	8	8
TAC (A)	4**		4
*E/CQ	12	12	12
*NS LOW	6	6	6
*ESC	8	8	8
*AAW	4	4	4
*LFE	8	8	8
FAC (A)	4	4	4
*TAR	8	8	8



\* Note: Proficiency in core plus skills is not required to obtain unit CSP.

\*\* One TAC(A) CSP crewman constitutes a TAC(A) crew.

b. A standard FA-18D crew consists of 1 pilot and 1 WSO. A CSP crew consists of individuals representing each crew position who have achieved and maintain individual CSP. In order to be considered proficient in a core skill, a crewmember must attain and maintain proficiency in core skill events as delineated in paragraphs (1) and (2) below.

(1) Events Required to Attain Individual CSP. To initially attain CSP in a core skill, a pilot/WSO must simultaneously have a proficient status in all of the core (200-300) T&R events listed in the table below for that core skill:

Individual CSP Attain Table														
	Skills						Missions							
FA-18D Pilot/WSO	FAM	AAR	AS	NS	AA	LAT	CAS	AR	SCAR	AAW	SEAD	AI	FAC (A)	TAC (A)
T&R event requirements to attain CSP	S200R	210R	S230	S250	260R	S280	S290R	310R	320R	S330R	S340R	S350R	S380	392R
	201R	211R	S231	251R	261R	281R	291R	311R	321R	331R	S341R	351R	S381	393
	202R		S232	252	262R	282	292R	312R		332R	342R	352R	382	
			S233	253R	263R		S300			S335R		353R	383R	
			S234	254	S264		301R			336R		354R	384	
			235R		265R		302R			337R			385	
			236R		S266		303						386	
			237R		S267								387R	
			238R		268R								388R	
			239R		269R								389R	
			240		270								390R	
			241										391	
			242R											
			243R											
R=Refresher POI event S=Event conducted in simulator														

(2) Events Required to Maintain Individual CSP. To maintain CSP, a Pilot/WSO must maintain proficiency in all of the T&R events listed in the chart below for that core skill.

Individual CSP Maintain Table														
FA-18D Pilot/WSO	Skills						Missions							
	FAM	AAR	AS	NS	AA	LAT	CAS	AR	SCAR	AAW	SEAD	AI	FAC (A)	TAC (A)
T&R event requirements to maintain CSP	S200R 202R	211R	237R 239R 243R	251R	260R 261R 262R 263R 265R	281R	291R 301R 302R	310R 311R 312R	320R 321R	S330R 331R 332R S335R 336R 337R	S340R S341R 342R	350R 351R 352R 353R 354R	383R 387R 389R 390R	392R
R=Refresher POI event S=Event conducted in simulator														

(3) Events Required to Attain Individual Proficiency in Core Plus Skills. Proficiency in Core Plus Skills is not required to obtain unit CSP. Training to Core Plus Skills is at the discretion of the unit commanding officer. To initially attain proficiency in a Core Plus Skill, an individual must simultaneously have a 'proficient' status in all of the T&R events listed in the table below for that Core Plus Skill:

Individual Core Plus Skills Attain Table							
FA-18D Pilot/WSO	E/CQ	NS	ESCORT	AAW	LFE	FAC (A)	TAR
T&R event requirements to attain Core Plus Skill proficiency	400R 401R 402R 403R 404R	430 431 432R	440R 441R	450R	470R 471R	491R 492 493 494	496 497R 498
R=Refresher POI event S=Event conducted in simulator							

(4) Events Required to Maintain Individual Proficiency in Core Plus Skills. To maintain proficiency in a core plus skill, an individual must maintain proficiency in all of the T&R events listed in the table below for that core plus skill:

FA-18D Pilot/WSO	E/CQ	NS	ESCORT	AAW	LFE	FAC (A)	TAR
T&R event requirements to maintain CSP	402R 403R 404R	432R	440R 441R	450R	471R	491R	497R

c. Minimum Combat Leader Requirements. At a minimum, in order to be considered Core Competent, a squadron must possess the following numbers of aircrew with the listed flight leadership designations.

FLT LD DESG	Pilots	WSOs
MSN CMDR	4	4
DIV LDR	6	NA
SEC LDR	10	NA

## 7. Qualifications And Designations

a. Qualification. A status assigned to personnel based on demonstration of proficiency in a specific skill. Specific criteria to achieve a qualification is delineated in this T&R manual. Upon successful completion of qualification criteria, commanding officers may issue an appropriate qualification letter for inclusion in the NATOPS jacket and APR. Aircrew do not lose a qualification as a function of refly factor for individual events. Loss of proficiency (delinquent refly factor) for all associated qualification events (events with measurable refly factor; '\*' refly factor events excluded) constitutes loss of that qualification. Re-qualification requires demonstration of proficiency. Re-qualification shall be achieved by successfully re-completing all R-coded events associated with the respective qualification listed in the FA-18A/C/D training tables (unless waived per paragraph 305 of the Aviation T&R Program Manual).

b. Designation. A status assigned to an individual based on leadership ability. A designation is a command specific, one-time occurrence and remains in effect until removed for cause. Specific designation requirements are delineated in the following tables. Commanders shall issue a designation letter to the individual upon the occasion of original designation, with appropriate copies for inclusion in the NATOPS jacket and APR.

c. Qualifications And Designations Tables. The tables below delineate the T&R events required to be completed to attain initial qualifications, to re-qualify, and to attain designations. All stage lectures, briefs, squadron training and prerequisites shall be complete prior to completing final events. Qualification and designation letters signed by the commanding officer shall be placed in the NATOPS and APR jackets.

<b>Qualification</b> (TRACKING CODE)	<b>Initial Event Qualification Requirements.</b>
NATOPS (600E)	IAW OPNAV 3710.7 and an annual qualification letter signed by the commanding officer.
INSTRUMENT (601E)	IAW OPNAV 3710.7 and an annual qualification letter signed by the commanding officer.
LAT QUAL (610E)	S280, 281, 282R
ACM QUAL (613E)	260R, 261R, 262R, 263, S264, 265R, S266, S267R, 268R, 269R, 270
NS QUAL (HI) (615E)	S250, 251R, 252, 253R, 254
NS QUAL (Low) (616E)	430, 431, 432R
FAC(A) QUAL (614E)	S380, S381, 382, 383R, 384, 385, 386, 387R, 388R, 389R, 390R
TAC(A) QUAL (617E)	392R, 393

<b>Designation</b> (TRACKING CODE)	<b>Designation Requirements.</b>
PMCF (619E)	IAW OPNAV 3710.7 and an annual designation letter signed by the commanding officer.
SECTION LEAD (631E)	620E, 621E, 622E, 623E, 624E, S625E, S626E, 627E, 628E, 629E, 630E, 631ER. The IUT shall be complete with all 200 and 300 level sorties not including FACA 380-391 and TACA 392-393 prior to beginning section lead workup.
DIVISION LEAD (644E)	640E, 641E, 642E, 643E, 644ER.
MISSION COMMANDER (652E)	650E, 651E, 652ER.
LAT(I) (513E)	IAW the MAWTS-1/NSAWC Course Catalog. * NSI (High) or NSI (Low) per MAWTS-1 Course Catalog.
ACT(I) (522E)	
NS(I)* (532E)	
FAC(A) I (542E)	
TAC(A) I (550E)	
TOPGUN (660)	
MDTC (661)	
WTI (662)	

d. Instructor Requirements. A squadron should possess the following number of pilots/WSOs with the listed instructor designations IAW MCO 3500.12 (WTTP). NSI in the following matrix refers to NSI (Low). The squadron CO/XO instructor designations shall not count toward the following numbers:

Instructor Designation	Pilots	WSOs
LATI	3	NA
NSI	3	3
ACTI	3	3
FAC (A) I	4	
TAC (A) I	2	
WTI	2	2
LSO	2	NA
MDTC/TOPGUN	1	1

8. Core Progression Model. The FA-18D Core Progression Model is depicted as follows:

## FA-18D CORE PROGRESSION MODEL

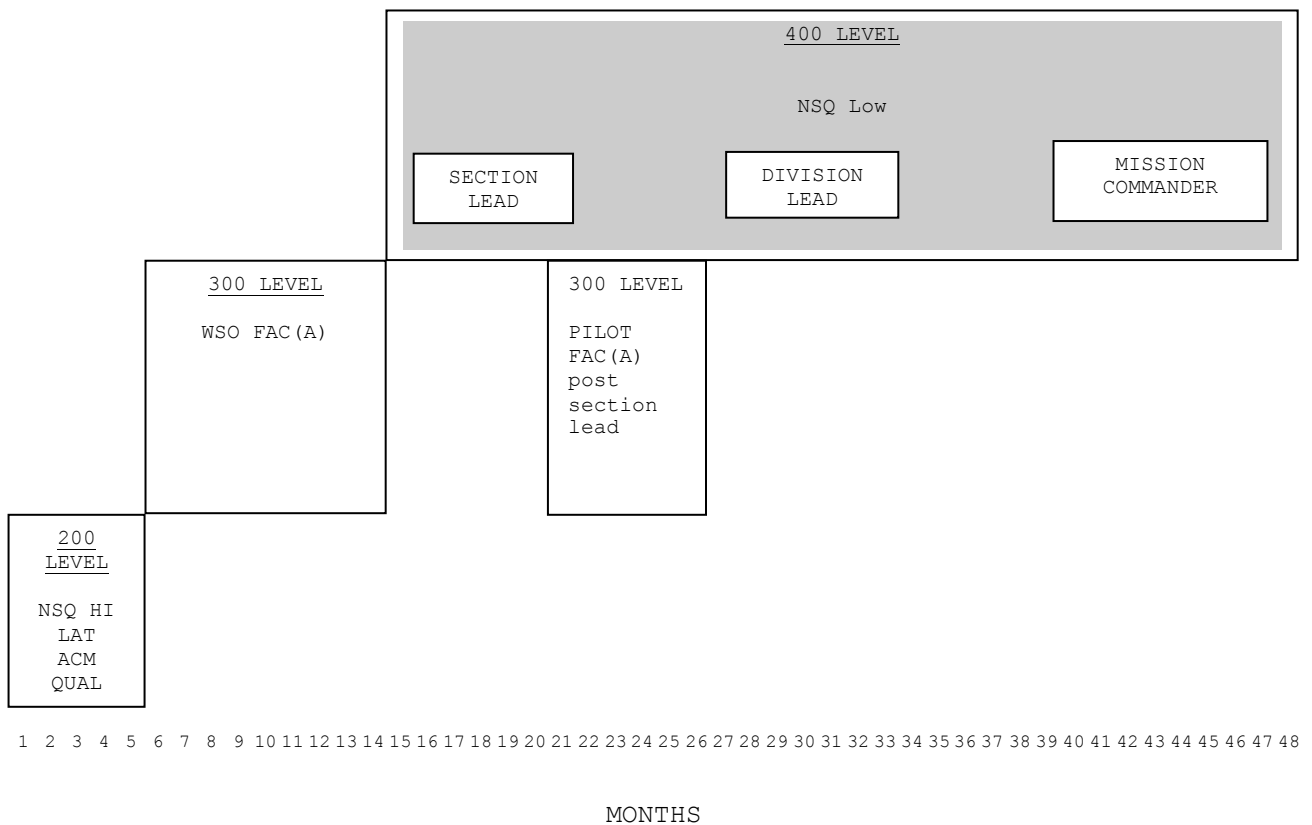


Figure 2.--FA-18D Core Progression Model.

102. PROGRAM OF INSTRUCTION (POI) FOR BASIC/TRANSITION/CONVERSION PILOT AND WSO (CAT I/II)

<u>WEEKS</u>	<u>COURSE/PHASE</u>	<u>ACTIVITY</u>
1-33	100 Level Training (CAT I/II)	FRS
34-58	200 Level Training	Tactical Squadron
59-82	300 Level Training	Tactical Squadron
83-88	400 Level Training	Tactical Squadron

103. POI FOR COMPREHENSIVE REFRESHER PILOT AND WSO (CAT III). (731 days or greater since last FA-18 flight.)

<u>WEEKS</u>	<u>COURSE/PHASE</u>	<u>ACTIVITY</u>
1-22	100 Level Training (CAT III)	FRS
23-46	200 Level Training	Tactical Squadron
47-70	300 Level Training	Tactical Squadron
71-76	400 Level Training	Tactical Squadron

104. POI FOR MODIFIED REFRESHER PILOT AND WSO (CAT IV). (486 days or greater but less than 730 days since last FA-18 flight.)

<u>WEEKS</u>	<u>COURSE/PHASE</u>	<u>ACTIVITY</u>
1-5	100 Level Training (CAT IV)	FRS
6-29	200 Level Training	Tactical Squadron
30-53	300 Level Training	Tactical Squadron
54-59	400 Level Training	Tactical Squadron

105. POI FOR REFRESHER PILOT SAFE-FOR-SOLO (CAT V). (366 days or greater but less than 485 days since last FA-18 flight.)

<u>WEEKS</u>	<u>COURSE/PHASE</u>	<u>ACTIVITY</u>
1-3	100 Level Training (SFS)	FRS
4-27	200 Level Training	Tactical Squadron
28-51	300 Level Training	Tactical Squadron
52-57	400 Level Training	Tactical Squadron

110. GROUND/GROUND/ACADEMIC TRAINING COURSES OF INSTRUCTION. To ensure the highest quality of training and readiness, squadron commanding officers will ensure that the T&R stage academic syllabus is conducted in accordance with the MAWTS-1 Course Catalog. This squadron academic training should be conducted once a week as a minimum. To add to the quality and scope of lectures given, the commanding officer should ensure that appropriately qualified individuals are sent to the schools listed below as a minimum.

<u>COURSE</u>	<u>ACTIVITY</u>
WTI	MAWTS-1 MCAS Yuma
Marine Division Tactics Course (MDTC)	MAWTS-1 MCAS Yuma
Navy Fighter Weapons School	NAS Fallon
HARM University	China Lake
SLAM(ER) School	Point Mugu
SLATS	NAS Fallon
Warfighter School	Tucson

130. GROUND/FLIGHT/SIMULATOR/EVENT PERFORMANCE REQUIREMENTS 200 LEVEL, 300 LEVEL, 400 LEVEL (FA-18A/C/D)

1. General

a. All events, to include simulators, shall begin with a comprehensive brief with emphasis on admin procedures (from the USMC FA-18 ADMIN SOP), CRM, tactical procedures (from the USMC FA-18 TACSOP), performance standards and aircrew expectations.

b. All events, to include simulators, shall terminate with a comprehensive debrief with emphasis on aircrew performance utilizing all evaluation techniques available (e.g., TACTS, tapes, participating aircrews, and AIC personnel).

c. An ATF is required for any initial event completed by a Basic, Transition, Conversion of Refresher pilot, or as recommended by the squadron Standardization Board. Standardized ATFs can be obtained by the T&R sponsor, MAWTS-1.

d. The T&R manual is the Marine Corps aircrew training document. It relates the training requirements and standards for Marine aircrew. When operational commanders assign FA-18 squadrons to prolonged commitments where specific T&R training is not available (e.g., deployed aboard CV), it is expected that degradation in some mission areas will occur. Commanding officers are authorized and encouraged to employ the FA-18 in specific missions relating to their current situation and avoid those mission areas that are not relevant. It is not intended for squadrons to train to specific mission areas and avoid mission areas that the FA-18 is capable of conducting, but are difficult to coordinate. This type of mission specific training is granted only to squadron commanding officers deployed in austere conditions that prevent them from employing the T&R manual as written.

2. T&R Phases

a. The 200 level phase is considered to be 'skill' level training. Completion of the 200 level phase should provide the FA-18 aircrew with the skills required to execute FA-18 missions that directly support the unit METL.

b. The 300 level phase is considered to be 'mission' level training. Completion of the 300 level phase ensures FA-18 aircrew are trained to execute missions that support the unit METL.

c. The 400 level phase is considered to be high risk, low probability of execution or theater specific training and is referred to as "Core Plus". Although core plus training events may provide valuable training opportunities, they are not measured as part of the unit reporting.

d. The 500 level phase contains instructor workup and certification syllabus events.

e. The 600 level phase contains requirements, qualification and designation syllabus events.

f. The 700 level phase contains ordnance and deficiency tracking codes to aid in training management.

g. The 200 and 300 level phases are considered core skills and will be reported as such.



h. The events within a stage should be flown in order. Aircrew should complete the prerequisites prior to beginning that stage. The commanding officer may waive this requirement based on aircrew experience and operational necessity but waivers should be avoided to the greatest extent possible.

i. In the event that ordnance or dissimilar adversary requirements are not available, or the available training range does not fully support the syllabus event, the following 700 Level tracking codes shall be logged in addition to the syllabus event code:

- (1) TRK-730: Required ordnance not available.
- (2) TRK-731: Dissimilar adversary not available.
- (3) TRK-732: Required range not available.

### 3. Simulators

a. Flight simulators will be utilized to the maximum extent possible. To enhance flight training and airborne proficiency, simulators shall be flown as a prerequisite for required stages of training when squadrons are co-located with mission capable simulators. Where simulators are not available, commanders may authorize the simulator events to be waived or flown in the aircraft as required.

b. During 200, 300, and 400 Level training, simulators can be used to update SSWD sorties in the 700 Level when the mission has first been flown in the aircraft. For example, if an aircrew completes an SSWD 700 Level event in the aircraft and flies a simulator event within the appropriate reflly interval, the simulator will update the SSWD proficiency for that particular 700 Level tracking code.

4. CRP Accountability. In order to log a T&R code, aircrew must satisfactorily complete event requirements IAW assigned Performance Standards. Logging multiple training codes on a single sortie shall be avoided except for the following mission areas:

a. CAS, AR, SCAR, AI - Required ordnance for these events may be changed based on NCEA availability, range restrictions or other operational constraints. When scheduling sorties, training officers are allowed to schedule additional training codes based on anticipated ordnance delivery profiles if the Performance Standards are met for the ordnance delivered. For example, aircrew are scheduled for CAS 291 with the required ordnance (4xMk-82/250 rounds of 20mm). The training officer may schedule additional training codes of AS 237 and AS 238. Even though all requirements for sortie completion may not be met for those two codes, the aircrew may log the additional codes, as long as the Performance Standards are met (i.e. valid delivery, within required CEP, etc).

b. Furthermore, exceptions should be made for sorties during which multiple unique training events can be completely accomplished. For example, it is appropriate to log three separate training codes if, during the conduct of a sortie, the flight completes all of the specific event requirements for a syllabus event, conducts air-to-air refueling and completes all AAR requirements, then completes a third syllabus event prior to landing. If multiple syllabus events are to be accomplished during a single flight evolution, appropriate planning, briefing, and debriefing time must be allotted to ensure that requisite training objectives can be met. Multiple codes shall also be logged for 500, 600 and 700 Level tracking events.

5. Number of aircraft required. Some of the syllabus events in the T&R have 1+ or 2+ aircraft required. 1+ aircraft required implies that the flight may be flown as a single ship or greater. 2+ aircraft required implies that the flight may be flown as a section or greater.

6. Sortie Requirements. Sortie requirements state the minimum number of passes, engagements, or maneuvers required to demonstrate proficiency. T&R event requirements are written to allow completion on one sortie. Squadrons who cannot complete all stated requirements in one sortie (i.e. CV squadrons or squadrons limited by range access and regulations) may complete the requirements of an event in multiple sorties as long as the completion sorties are flown in succession and within normal currency windows defined by unit SOP. If an aircrew's currency expires (i.e. a warm up flight is required), or the event requirements cannot be completed on the next scheduled sortie, then the event shall be re-flown in its entirety.

7. Performance Standards. Performance standards are listed for each T&R event description. These are training standards for individual aircrew performance and should be utilized by the evaluator as a guideline to determine the satisfactory completion of each event. If the aircrew did not successfully attain the performance standards, the training code shall not be logged as a completed flight and CRP credit shall not be granted until proficiency is demonstrated.

8. T&R Chaining. Event chaining allows for the completion of more complex and/or advanced events using the same skill to update proficiency status of events. Only events in a sequence entailing demonstration of equivalent skills shall be chained. Refer to the Aviation T&R Program Manual Chapter 2 for detailed guidance on Conditional Chaining. For the purposes of this T&R, any flight event will chain FAM-201, and any event flown with the aid of NVDS will chain NSQ-251.

9. FA-18 Tactical T&R Refresher. The FA-18 Tactical T&R Refresher syllabus shall be completed in tactical squadrons. Aircrew should fly all R coded events. However, a Refresher need not fly every event within a stage to be re-qualified in that stage. The commanding officer may tailor the Refresher syllabus to fit the experience level of the Refresher per the Aviation T&R Program Manual. When all of the R coded events within a stage are successfully completed, all remaining events in that stage that are proficient or delinquent are updated and respective CRP credited. This assumes that the Refresher aircrew had completed all events in the stage during his previous tour. If the Refresher aircrew did not previously complete events in a stage of training, those events must be completed in addition to R coded events. Experienced aircrew (completed at least one fleet tour in an operational unit) who have not flown for an extended period of time, but not long enough to require FRS Refresher training, shall be assigned to the Refresher POI. When an individual assigned to the Basic POI has attained individual CSP in all Core Skills, that individual shall be re-assigned to the Refresher POI.

10. FA-18 FRS Training

a. FA-18 FRS training is provided at one of three designated FRSs, VMFAT-101, VFA-106, or VFA-125.

b. Pilot FRS training standards are the CNO approved FA-18A/C/D pilot syllabi. WSO FRS training is provided only at VMFAT-101. WSO training standards are the VMFAT-101, CNO sanctioned FA-18D WSO syllabi. The CNO FRS Pilot and WSO training syllabi are not updated in conjunction with this manual and are not included herein.

c. Basic/Transition/Conversion (CAT I/II) aircrew will be assigned to fly the entire FRS Basic (CAT I) training syllabus at a designated FRS training squadron.

d. FRS Refresher syllabi

(1) Pilots who have not flown the FA-18 in 366 days or greater but less than 485 days will complete a Safe-for-Solo (CAT V) syllabus at a designated FRS training squadron.

(2) Aircrew who have not flown the FA-18 in 486 days or greater but less than 730 days will complete a Modified FRS Refresher (CAT IV) syllabus at a designated FRS training squadron.

(3) Aircrew who have not flown the FA-18 in 731 days or greater will complete the comprehensive FRS Refresher syllabus (CAT III) at a designated FRS training squadron.

11. Aircrew conducting NS LAT training [other than NSQ Low training under the supervision of an NSI (Low)] shall be NS Low qualified.

131. CORE SKILL BASIC PHASE (200 LEVEL) TRAINING

1. General. This phase contains basic core skill training essential to wartime employment of the unit platform/system. This phase should provide aircrew with the skills required to complete 300 level missions. This phase should be completed prior to beginning the 300 level events if practicable.

2. Familiarization (FAM)

a. Purpose. To maintain proficiency and familiarity with flight characteristics, limitations, and operating procedures.

b. General. This stage provides an arrival inventory of aircrew proficiency and allows aircrew to meet currency requirements for the FA-18. Squadron shall use these events for:

(1) Squadron introduction and area familiarization.

(2) Back in the saddle.

(3) Periodic emergency procedures training.

c. Ground /Academic Training. Aircrew must be current per NATOPS flight manual and USMC FA-18 SOP. Aircrew shall review the USMC FA-18 SOP, TACSOP, local addendums, and area range manuals. The following administrative and academic tasks will be accomplished prior to completing the 200 level T&R codes.

EVENT	DATE	INSTRUCTOR
<b>INSTRUMENT/LOCAL AREA FAM</b>		
LOCAL S.I.D.		
LOCAL DIVERTS		
BINGO PROFILE		
TACAN APPROACH		
COURSE RULES		
<b>WITHIN FIRST 10 FLIGHTS</b>		
10 SECOND GO		
SECTION GO		
RADAR TRAIL DEPT		
NORDO APP - WING		
SECTION PAR		
ROLL & GO*		
OVERHEAD		
<b>WITHIN THE FIRST 20 FLIGHTS</b>		
SECTION LANDING		
LEAD NORDO SECT		
NT NORDO WING		
FLT LD SEP - FINAL		
SECTION HUNG ORD		
SIM SINGLE ENG APPR TO WAVEOFF		
<b>WITHIN THE FIRST 30 FLIGHTS</b>		
LEAD NT NORDO		
OVERHEAD NT		
DIV HERD GO		
DIV STREAM GO		
DIV RDR TRAIL DEPT AS -4		
<b>SELF-PACED READINGS</b>		<b>DATE COMPLETED</b>
USMC FA-18 TACSOP		
TG MAN, CH. 1: COMM BREV		
TG MAN, CH 34: DEF CM		
TG MAN, CH. 27: SHOT VAL		
TG MAN, CH. 31: FLIR SYS		
TG MAN, CH. 32: LGBs		
TG MAN, CH. 44: FA-18 EMPL		
TG MAN, CH. 45: FA-18 EMPL		
JTTP 3-09.3: JCAS		
AFTTP 3-1, CH. 4: AAA		
AFTTP 3-1, CH. 5: SAMs		
AFTTP 3-1, CH. 6: FTR ARCFT		

CHALK-TALKS	DATE COMPLETED
WINGMAN RESPONSIBILITIES	
A/A TIMELINE MNGMNT	
A/G TIMELINE MNGMNT	
CAS SYSTEM MNGMNT	
INTERCEPT MNGMNT	

d. Flight and Simulator Event Training. (3 Events, 3.6 Hours).

SFAM-200      1.0      R WTT/OFT S

Goal. Demonstrate proficiency in executing ground and airborne emergency procedures.

Requirement. Successfully execute the procedures for one ground emergency and two airborne emergencies.

Performance Standards

Executes the correct "boldface" NATOPS procedures.  
Makes appropriate flight leadership decisions.

Range Requirements. MDA.

FAM-201      1.3      R 1+ FA-18A/C/D A

Goal. Introduce local course rules, review administrative SOPs, and review advanced handling characteristics of the FA-18.

Requirement. Practice standardized ground procedures, departure to and arrival from assigned working area IAW local course rules. Review advanced handling characteristics and familiarize with FA-18 performance envelope. Conduct G-awareness maneuver, high AOA maneuvering ( $\geq 35$  alpha), pirouette control logic, max performance and sustained performance turns at 15,000 ft. Aircraft must be in a symmetric configuration and CG must be within limits for high AOA flight.

Performance Standards

Adhere to USMC FA-18 Admin SOP.  
Demonstrate proficiency and knowledge in local area procedures and course rules.  
Demonstrate proficiency in local arrival procedures, to include one simulated instrument approach.  
Demonstrate proficiency in maintaining aircraft control throughout FA-18 envelope.

Prerequisite. SFAM-200.

Range Requirements. SUA, max altitude at least 30,000' above ground level.

FAM-202                      1.3                      R 2 FA-18A/C/D A

Goal. Practice radar intercept and stern conversion mechanics against a single bandit.

Requirement. With a minimum of 40 NM separation, the fighter conducts a minimum of three intercepts to a stern conversion. The bandit will commence one intercept from 10,000-25,000 ft at any airspeed, one intercept from 30,000-40,000 ft at any airspeed, and one intercept from 1000-5000 ft at less than 250 knots. Maneuvering +/- 45 degrees and 5000'.

Performance Standards

Adhere to USMC FA-18 Admin SOP.  
Maintains proper formation and visual mutual support to and from assigned working area.  
Demonstrates proficiency in basic radar mechanics IAW USMC TACSOP.  
Arrives at a valid rear quarter weapons envelope with 0 to +100 knots Vc.  
Takes valid shots.

Prerequisite. SFAM-200.

Ordinance. CATM-9 and CATM-7/120.

Range Requirements. MDA.

3. Air to Air Refueling (AR)

a. Purpose. To gain and maintain proficiency and familiarity with AAR operations.

b. General. Operations shall be conducted in accordance with the Air Refueling NATOPS Manual. Squadrons may conduct AAR as a part of other ferry or tactical missions.

c. Ground/Academic Training. Squadrons shall complete the AAR stage briefs before conducting any AAR flight per the NATOPS Flight Manual, Air refueling NATOPS manual, and local SOPs.

d. Flight and Simulator Event Training. (2 Events, 2.6 Hours).

AAR-210                      1.3                      R 1+ FA-18A/C/D A

Goal. Become proficient in day aerial refueling.

Requirement. Perform all AAR procedures to include: tanker rendezvous, observation position, pre-contact position, refueling procedures, and tanker departure. Six contacts required for completion. If proficient, one contact required for completion.

Performance Standards

Adhere to USMC FA-18 Admin SOP.  
Executes safe rendezvous procedures.  
Uses proper communications procedures.  
From a stabilized position, successfully engages the basket expeditiously.

Responds quickly and safely to all communications and communications out signals from the tanker aircraft.

Range Requirements. AAR.

External Syllabus Support. One compatible tactical or strategic tanker.

AAR-211                      1.3                      R 1+ FA-18A/C/D A (NS)

Goal. Become proficient in night aerial refueling.

Requirement. Perform all AAR procedures to include: tanker rendezvous, observation position, pre-contact position, refueling procedures, and tanker departure. Six contacts required for completion. If proficient, 1 contact required for completion.

Performance Standards

Adhere to USMC FA-18 Admin SOP. Executes safe rendezvous procedures.

Uses proper communications procedures.

From a stabilized position, successfully engages the basket expeditiously.

Responds quickly and safely to all communications and communications out signals from the tanker aircraft.

Prerequisite. AAR-210.

Range Requirements. AAR.

External Syllabus Support. One compatible tactical or strategic tanker.

#### 4. Air-to-Surface (AS)

a. Purpose. To develop proficiency in air-to-surface ordnance delivery.

b. General

(1) Emphasize surface-to-air counter-tactics, sensor target acquisition, designation techniques, delivery modes and attack parameters.

(2) AS-237 through AS-240 should be flown on a raked range with bomb impact scoring capability.

(3) AS-240 and AS-242 shall be flown during the day for initial events. After successful completion of the initial event, AS-240 and AS-242 shall be flown as NS events.

(4) Aircraft should be configured with an operable VTR/CVRS, ALQ-126B, ALR-67, TPOD, LDT, CATM-9, KY-58, MIDS, chaff, and flares.

c. Ground/Academic Training. Refer to MAWTS-1 Course Catalog.

d. Flight and Simulator Event Training. (14 Events, 16.7 Hours).

SAS-230                      1.0                      WTT/OFT S

Goal. Practice medium and high altitude TTPs to survive in a surface-to-air threat environment. Emphasize correctly assessing the relative threat level and performing the appropriate preemptive or reactive maneuvers.

Requirement. Conduct a simulated two-ship air interdiction mission in a medium to high threat surface-to-air environment. Conduct preemptive and reactive maneuvers to defeat the simulated IADS. Consult current tactical publications for appropriate maneuvers.

Performance Standards

Adheres to USMC FA-18 Admin SOP.  
Correctly assess the threat based upon the briefed scenario and aircraft system cueing (ALR-67, etc.).  
Correctly performs briefed TTPs while maintaining situational awareness and mutual support relative to flight.  
Survives the simulated threat and able to continue with mission.

SAS-231                      1.0                      WTT/OFT S

Goal. Practice guiding PGM's with a TPOD, designate targets with the APG-65/73, and track laser energy with the LDT. Emphasize capabilities and limitations, cockpit displays and switchology, and employment techniques.

Requirement. Guide PGM's to impact using the TPOD. Four self-lasing deliveries, four radar designations to TPOD handoff deliveries, and 4 deliveries using the LDT to track an offboard laser are required for completion.

Performance Standards

Adheres to USMC FA-18 Admin SOP.  
Demonstrate familiarity with TPOD, radar, and LDT procedures and employment.  
Adheres to tactical abort parameters, when applicable.  
Executes proper procedures for designation, weapon release, and guidance.

SAS-232                      1.0                      WTT/OFT S

Goal. Practice low, medium, and high angle dive ordnance deliveries of Cluster Munitions (CBU's) and rockets using INS and visual designations to computed deliveries. Emphasize switchology, stores management and displays, designation techniques, attack parameters ("Z" Diagrams), and valid delivery techniques.

Requirement. Conduct 4 low, 4 medium, and 4 high angle deliveries on multiple targets using auto slew and CCIP. Half of the deliveries will commence with the target designated via the INS, and half will use visual designations during the attack.



Performance Standards

Adheres to USMC FA-18 Admin SOP.

Adheres to briefed delivery parameters and TACSOP valid delivery criteria.

Adheres to tactical abort parameters, when applicable.

Recognizes errors in delivery techniques and makes corrections.

SAS-233

1.0

WTT/OFT S

Goal. Practice employment of JDAM munitions. Emphasize weapons capabilities and limitations, mission planning factors, stores management and cockpit displays, and employment techniques.

Requirement. Plan and conduct multiple JDAM deliveries. A minimum of 3 PP and 3 TOO deliveries are required for completion.

Performance Standards

Adheres to USMC FA-18 Admin SOP.

Adheres to briefed delivery parameters and TACSOP valid delivery criteria.

Adheres to safe escape maneuver in accordance with WASP, when applicable.

Executes proper procedures for weapon programming and release.

SAS-234

1.0

WTT/OFT S

Goal. Practice employment of laser weapons, to include the Laser Maverick and LGB. Emphasize weapons capabilities and limitations, mission planning factors, stores management and cockpit displays, and employment techniques.

Requirement. Plan and conduct multiple LGB and LMAV deliveries. A minimum of 4 LGB and 4 LMAV deliveries are required for completion. Half of the deliveries will be via self-lasing and half will be via an offboard laser designator.

Performance Standards

Adheres to USMC FA-18 Admin SOP.

Adheres to briefed delivery parameters and TACSOP valid delivery criteria.

Adheres to tactical abort parameters, when applicable.

Executes proper procedures for weapon release and guidance.

AS-235

1.3

R 2 FA-18A/C/D A (NS)

Goal. Practice medium and high altitude TTPs to survive in a surface-to-air threat environment. Emphasize correctly assessing the relative threat level and performing the appropriate preemptive or reactive maneuvers.

Requirement Conduct a simulated two-ship air interdiction mission in a medium to high threat surface-to-air environment. Conduct preemptive and reactive maneuvers to defeat the simulated IADS. Consult current tactical publications for appropriate maneuvers.

Performance Standards

Adhere to USMC FA-18 Admin SOP. Correctly assess the threat based upon the briefed scenario and aircraft system cueing (ALR-67, etc.).

Correctly performs briefed TTPs while maintaining situational awareness and mutual support relative to flight.

Survives the simulated threat and able to continue with mission.

Prerequisite. SAS-230.

Ordnance. 40 Chaff/20 Flare for ALE-39 equipped aircraft/60 Chaff/60 Flare for ALE-47 equipped aircraft/TACTS Pod if using TACTS instrumented range.

Range Requirements. MDA, URBN, TRG, COMPLEX.

External Syllabus Support. EW/TACTS.

AS-236

1.3 R 1+ FA-18A/C/D A (NS)

Goal. Practice medium to high altitude target acquisition in a complex environment using APG-65/73, TPOD, and additional sensors. Locate and designate pre-briefed Desired Mean Points of Impact (DMPIs). If available, with fourth generation TPOD (LITENING II, ATFLIR), be able to recognize and identify targets of opportunity.

Requirement. Using charts and imagery, brief routing, sensor acquisition techniques, FLIR and RADAR predictions, and environmental mission planning factors. Acquire targets and conduct simulated sensor attacks on IR and RADAR significant targets. If a fourth generation TPOD available, classify and identify tactical vehicle-sized targets of opportunity. Two radar significant and 3 IR significant targets are required for completion of the event.

Performance Standards

Adhere to USMC FA-18 Admin SOP.

Use all available mission planning tools (PFPS, JMPS, Charts, Imagery) to brief planned targets/DMPIs.

Acquire, identify, and designate selected DMPIs.

Prerequisite. SAS-231.

Ordnance. TPOD.

Range Requirements. MOA, URBN TRG, COMPLEX.

AS-237

1.3 R 2+ FA-18A/C/D A (NS)

Goal. Practice medium, and high angle visual ordnance delivery skills using INS and visual designations to computed delivery. Emphasize designation techniques, attack parameters and delivery on a raked range.

Requirement. Conduct medium, and high angle ordnance delivery on a raked range using Auto Slew and CCIP. Six runs medium angle, and 6 runs high angle required for completion. Half

of each type delivery will utilize INS designation prior to attack and half will use visual designations during attack.

Performance Standards

Adhere to USMC FA-18 Admin SOP.

Adheres to briefed delivery parameters and TACSOP valid delivery criteria.

Adheres to tactical abort parameters, when applicable.

Achieves a CEP within the TACSOP valid bomb accuracy parameters.

Prerequisite. SAS-232.

Ordnance. 12 MK-76, 40 Chaff/20 Flare for ALE-39 equipped aircraft/60 Chaff/60 Flare for ALE-47 equipped aircraft.

Range Requirements. RSTD, RKD RNG, STRAFE, HVY INERT, EXP.

AS-238

1.3 R 2+ FA-18A/C/D A (NS)

Goal. Practice medium, and low angle visual ordnance delivery/strafing skills using INS and visual designations to computed delivery. Emphasize designation techniques, attack parameters and delivery on a raked range.

Requirement. Conduct medium, and low angle ordnance deliveries and strafing on a raked range using Auto Slew and CCIP. Three runs medium angle bombing, three runs low angle bombing, and three runs strafing are required for completion. Half of all runs will utilize INS designation prior to attack and half will use visual designations during attack.

Performance Standards

Adhere to USMC FA-18 Admin SOP.

Adheres to briefed delivery parameters and TACSOP valid delivery criteria.

Adheres to tactical abort parameters, when applicable.

Achieves a CEP within the TACSOP valid bomb accuracy parameters.

Prerequisite. AS-237.

Ordnance. 6 MK-76, 500 rnd 20 mm, 40 Chaff/20 Flare for ALE-39 equipped aircraft/60 Chaff/60 Flare for ALE-47 equipped aircraft.

Range Requirements. RSTD, RKD RNG, STRAFE, HVY INERT, EXP.

AS-239

1.3 R 2+ FA-18A/C/D A (NS)

Goal. Practice low-level navigation ingress, low and high angle pop up attacks using the computed delivery modes as a single ship and as a section. Emphasize attack parameters, delivery modes, and designation techniques.

Requirement. Conduct low-level navigation ingress to a raked range prior to conducting pop-up attacks. Conduct low and high angle pop up attacks on a raked range using Auto Slew and CCIP. Minimum of two single ship pop attacks, two single ship cool pops, and two section low attacks and two section

high/low attacks are required for completion. Maintain proper frag avoidance via maneuvers and timing for simulated HE ordnance.

Performance Standards

Adhere to USMC FA-18 Admin SOP.

Briefs carriage and release restrictions and frag avoidance parameters for notional Mk-83 GP weapons.

Adheres to briefed delivery parameters and TACSOP valid delivery criteria.

Adheres to tactical abort parameters, when applicable.

Achieves a CEP within the TACSOP valid bomb accuracy parameters.

Maintains proper briefed formation, visual mutual support, and achieves briefed target separation.

Prerequisite. AS-238.

Ordnance. 6 BDU-48, 6 MK-76, 40 Chaff/20 Flare for ALE-39 equipped aircraft/60 Chaff/60 Flare for ALE-47 equipped aircraft.

Range Requirements. RSTD, RKD RNG, HVY INERT, EXP.

AS-240

1.3 2+ FA-18A/C/D A (NS)

Goal. Practice ordnance delivery using the TPOD. Emphasize target acquisition and designation, attack parameters, and delivery.

Requirement. Aircrew in the Basic POI shall fly AS-240 during the day for the initial event. After successful completions of the initial event, AS-240 shall be flown as an NS event. Conduct three level and three medium / high angle ordnance deliveries using TFLIR for acquisition and designation. Three Auto or Scene Track attacks and three Nav stabilized attacks required for completion. If on a LASER safe range, use TPOD lasing for target ranging.

Performance Standards

Adhere to USMC FA-18 Admin SOP.

Able to acquire and designate targets using the TFLIR.

Adheres to briefed delivery parameters and TACSOP valid delivery criteria.

Adheres to tactical abort parameters, when applicable.

Able to maintain TFLIR designation on target until weapons impact.

Achieves a CEP within the TACSOP valid bomb accuracy parameters.

Prerequisite. SAS-231.

Ordnance. 6 MK-76 or 2 LGTR, 40 Chaff/20 Flare for ALE-39 equipped aircraft/60 Chaff/60 Flare for ALE-47 equipped aircraft

Range Requirements. RSTD, RKD RNG, LSR, IR TGT, RDR TGT, LGB, EXP.

AS-241

1.3 2+ FA-18A/C/D A (NS)

Goal. Practice laser-guided PGM deliveries, emphasizing LGB and Laser Maverick (LMAV). Emphasize stores symbology, cockpit displays, attack parameters and delivery.

Requirement. Conduct LGB and LMAV attacks on IR significant targets of opportunity. Two LGB/LGTR runs and three Captive LMAV runs are required for completion.

Performance Standards

Adhere to USMC FA-18 Admin SOP.  
Adheres to briefed delivery parameters and TACSOP valid delivery criteria.  
Adheres to tactical abort parameters, when applicable.  
Proper comm brevity in accordance with J-LASER publication.  
Acquire LASER spot on 75% of attempts.  
Achieve a CEP within the TACSOP valid bomb accuracy parameters.

Prerequisite. SAS-234, AS-240.

Ordinance. 2 LGTR, CATM-65E.

Range Requirements. RSTD, RKD RNG, LGB.

External Syllabus Support. Laser designator (ground or airborne).

AS-242

1.3 R 2+ FA-18A/C/D A (NS)

Goal. Practice employment of JDAM munitions. Emphasize weapons capabilities and limitations, mission planning factors, stores management and cockpit displays, and employment techniques.

Requirement. Aircrew in the Basic POI shall fly AS-242 during the day for the initial event. After successful completion of the initial event, AS-242 shall be flown as an NS event. Plan and conduct multiple JDAM deliveries. Two PP and two TOO deliveries minimum are required for completion of the event.

Performance Standards

Adhere to USMC FA-18 Admin SOP.  
Able to plan JDAM delivery via TAMPS/JMPS.  
Uses available mission planning tools (PFPS, JMPS, charts, imagery) to develop coordinates/DMPs and brief applicable mission planning factors.  
Adheres to briefed air-surface timeline.  
Adheres to briefed delivery parameters and TACSOP valid delivery criteria.  
Adheres to tactical abort parameters, when applicable.

Prerequisite. SAS-233.

Ordinance. 1 Captive JDAM, 40 Chaff/20 Flare for ALE-39 equipped aircraft/60 Chaff/60 Flare for ALE-47 equipped aircraft.

Range Requirements. RSTD, TGT, JDAM.

AS-243                      1.3                      R 2+ FA-18A/C/D A (NS)

Goal. Practice section "buddy lase" and "buddy bomb" ordnance deliveries. Emphasize mutual support and target area tactics.

Requirement. Conduct ordnance deliveries using TPOD and LDT. Conduct three target attacks utilizing "buddy lase" tactics and three target attacks utilizing "buddy bomb" tactics for completion.

Performance Standards

Adhere to USMC FA-18 Admin SOP.

Able to acquire/designate target with sensor.

Able to maintain proper geometry for target illumination until weapons impact ("buddy lase").

Achieves a CEP within the TACSOP valid bomb accuracy parameters.

Prerequisite. AS-241.

Ordnance. 2 LGTR and 6 Mk-76, 40 Chaff/20 Flare for ALE-39 equipped aircraft/60 Chaff/60 Flare for ALE-47 equipped aircraft.

Range Requirements. RSTD, TGT, LGB, EXP.

5. Night Systems (NS)

a. Purpose. To develop proficiency using Night Vision Devices (NVDs).

b. General

(1) A MAWTS-1 certified NSI (High) or NSI (Low) is required to fly within the section while supervising non-NSQ HI aircrew for NS-250 through NS-254. For FA-18D squadrons, if the NSI is a pilot, the NSI shall be the flight lead; if the NSI is a WSO, the NSI should fly in the wingman aircraft. For NS-250 through NS-254, the flight lead must be NSQ HI.

(2) Upon completion of NS-250 through NS-254 with a designated NSI (High) or NSI (Low), an aircrew may be designated NSQ HI.

(3) WSOs that have successfully completed the FRS Night Attack (NATK) syllabus are only required to fly NS-251 and NS-254. Upon successful completion of NS-251 and NS-254 the WSO aircrew shall be given credit for attaining proficiency in the remaining events in the 200 level NS syllabus.

(4) At the discretion of the commanding officer, NSQ HI aircrew may fly any night or night optional event in the T&R with the aid of NVDs. NSQ HI aircrew are limited to a minimum altitude of 500 ft AGL for all night sorties during HLL conditions (lux of 0.0022 or greater). During LLL conditions, NSQ HI aircrews are limited to a minimum altitude of 1000 ft AGL. In any light level, no lower than local SOPs.

(5) Consult T&R Program Manual for applicable light level and currency restrictions for NS sorties.

c. Ground/Academic Training. Refer to MAWTS-1 Course Catalog.

d. Flight and Simulator Event Training. (5 Events, 6.2 Hours).

SNS-250

1.0

WTT/OFT S NS

Goal. Practice donning and removing NVDs, formation flight, radar intercepts, and high altitude ordnance delivery using NVDs.

Requirement. Perform formation flight and radar intercepts with the aid of NVDs. Perform medium and high altitude ordnance deliveries. Two radar intercepts and four ordnance deliveries using high and medium angle dives are required for completion.

Performance Standards

Adhere to USMC FA-18 Admin SOP.

Knows and understands visual illusions associated with NVD usage.

Maintains pre-briefed formations.

Conducts safe rendezvous.

Conducts radar intercept IAW USMC TACSOP to arrive within valid WEZ.

Takes valid shots.

Adheres to briefed delivery parameters and TACSOP valid delivery criteria.

Adheres to tactical abort parameters.

NS-251

1.3

R 2 FA-18A/C/D A NS

Goal. Introduce formation flying and intercept procedures with the aid of NVDs.

Requirement. Fly goggle tac wing formation enroute to the area. Practice goggle cruise/tac wing/spread/trail formations above 5,000 ft AGL. Introduce various combinations of light options and range cues. Perform four break up and rendezvous. Conduct one forward quarter radar intercept to an AIM-7 LAR and one stern intercept to an AIM-9 LAR.

Performance Standards

Adhere to USMC FA-18 Admin SOP.

Maintains visual mutual support.

Maintains pre-briefed formations.

Conducts safe rendezvous. Conducts radar intercept IAW USMC TACSOP to arrive within valid WEZ.

Takes valid shots.

Prerequisite. FAM-201, SNS-250.

Ordinance. CATM-9 and CATM-7/120.

Range Requirements. MOA.

NS-252

1.3

2 FA-18A/C/D vs. 2 Adversaries A NS

Goal. Conduct section attacks against medium altitude, non-maneuvering forward quarter capable bogies using NVDs. Emphasize section intercept procedures using NVDs, maintaining proper formation, sorting, BVR weapons employment, and standardized communications. Demonstrate the effect of expendables on NVDs.

Requirement. With a minimum of 40 NM separation, the fighters commence the intercept at medium altitude. The bogies commence the intercept from 10,000-30,000 ft, any airspeed, non-maneuvering. Fighter weapons control status is tight with PID criteria set by flight lead according to theater of operation. Three runs required for completion. One intercept will be a night ICAO intercept and escort. Expendables should be used by the adversary and fighter on at least one run.

Performance Standards

Adhere to USMC FA-18 Admin SOP.  
Maintains visual mutual support.  
Performs radar mechanics IAW USMC TACSOP.  
Adheres to briefed air-air timeline IAW USMC TACSOP.  
Takes valid shots.

Prerequisite. NS-251.

Ordnance. CATM-9, 40 Chaff/20 Flare for ALE-39 equipped aircraft/60 Chaff/60 Flare for ALE-47 equipped aircraft, and CATM-7/120.

Range Requirements. MOA, MACH 1+, EXP.

External Syllabus Support. Two adversaries. (GCI).

NS-253

1.3 R 2 FA-18A/C/D A NS

Goal. Introduce medium and low angle dive deliveries, and low angle pop-up attack deliveries utilizing NVDs.

Requirement. Conduct 3 medium and 3 low angle dive deliveries, and 3 individual low angle pop-up attacks on a raked range using NVDs. Minimum recovery altitude should be 5,000 ft AGL for medium altitude deliveries and 500' ft AGL for low angle deliveries and low angle pop-up attacks. Minimum ingress altitude shall be 500' AGL (>.0022 lux required) for pop-up attacks. Nine deliveries are required for completion.

Performance Standards

Adhere to USMC FA-18 Admin SOP.  
Knows and understands visual illusions associated with NVD usage.  
Adheres to briefed delivery parameters and TACSOP valid delivery criteria.  
Achieves a CEP within the TACSOP valid bomb accuracy parameters.  
Adheres to tactical abort parameters.

Prerequisite. AS-239, NS-251.

Ordnance. 6 MK-76, 3 BDU-48, 40 Chaff/20 Flare for ALE-39 equipped aircraft/60 Chaff/60 Flare for ALE-47 equipped aircraft.

Range Requirements. RSTD, RKD RNG, EXP.



NS-254

1.3

2 FA-18A/C/D A NS

Goal. Introduce section medium/high altitude section PGM deliveries.

Requirement. Conduct section PGM attacks using NVD's and onboard sensors. Six runs using air-surface timeline and TPOD deliveries required for completion. Emphasize mutual support, target acquisition, and target area tactics.

Performance Standards

Adhere to USMC FA-18 Admin SOP.

Knows and understands visual illusions associated with NVD usage.

Acquires and designates briefed target with sensors.

Maintains mutual support and proper visual lookout with NVD scan and minimizing "heads-down" time.

Achieves a CEP within the TACSOP valid bomb accuracy parameters.

Adheres to tactical abort parameters.

Prerequisite. AS-241, NS-253.

Ordinance. 2 LGTR, 40 Chaff/20 Flare for ALE-39 equipped aircraft/60 Chaff/60 Flare for ALE-47 equipped aircraft.

Range Requirements. RSTD, RKD RNG,, TGT, LGB.

6. Air-to-Air (AA)

a. Purpose

(1) To increase aircrew proficiency in employing the FA-18 in all aspects of the air-to-air arena.

(2) Knowledge of air-to-air aircraft systems, weapons and performance characteristics should be emphasized throughout this phase.

(3) For individual employment, envelopes and shot validity for air-to-air weapons will be stressed on every mission.

(4) For multi-plane evolutions, mission objectives, timeline awareness, mutual support, sensor usage, standardized comm., weapons employment, AIC integration, short range radar mechanics, defensive reaction, targeting and flow decisions will be stressed on every mission. AIC and Data Link should be utilized to the maximum extent possible. If co-located with AIC controllers, a face-to-face brief and debrief should be conducted for all engagements that begin from beyond visual range. The TACTS range shall be utilized to the maximum extent possible. If units are not co-located with an appropriate TACTS facility, every effort should be made to ensure aircrew have the ability to fly on and debrief in a TACTS facility prior to gaining their ACM qualification.

b. General

(1) AA-260 through AA-270 require an ACTI flight lead in the flight when any participating aircrew is not ACM qualified. For FA-18D aircrew, a non-ACM qualified pilot requires an ACTI WSO in the aircraft and an ACTI pilot flight lead. A non-ACM qualified WSO requires an ACTI pilot in the

aircraft. If all participating aircrew are ACM qualified there is no requirement for an ACTI in the flight.

(2) After successful completion of the AA Stage and successfully completing the AA-270 evaluation sortie, the aircrew is eligible to be ACM qualified by the commanding officer.

(3) Aircraft should be configured with an operable VTR/CVRS, ALR-67, CATM-9 and chaff and flares. For multi-plane evolutions, in addition to the above listed configuration, CATM-7/120, KY-58, ALQ-126B, CIT, MIDS and TACTS Pod should be utilized.

c. Ground/Academic Training. Refer to MAWTS-1 Course Catalog.

d. Flight and Simulator Event Training. (11 Events, 13.4 Hours).

AA-260

1.3

R 2 FA-18A/C/D A

Goal. Practice the SSD and the mechanics of offensive BFM. Emphasize energy management and assessment, turn circle theory, deck awareness and weapons employment recognition.

Requirement. One SSD, three offensive perch setups and 1 guns defense (executed from an offensive start) required. Offensive perch setups will be conducted with 3000 ft, 6000 ft, and 9000 ft separation between aircraft. The guns defense start is at the discretion of the flight lead.

Performance Standards

Adheres to USMC Admin SOP.  
Manages fuel per the brief.  
Maintains offensive position.  
Employ Follow on weapons.  
Separate prior to becoming neutral.  
Take valid shots.

Prerequisite. FAM-201/202.

Ordnance. CATM-9, 40 Chaff/20 Flare for ALE-39 equipped aircraft/60 Chaff/60 Flare for ALE-47 equipped aircraft.

Range Requirements. AA, EXP.

AA-261

1.3

R 2 FA-18A/C/D A

Goal. Practice the SSD and the mechanics of defensive BFM. Emphasize energy management and assessment, turn circle theory, deck awareness and weapons employment recognition.

Requirement. One SSD, three defensive perch setups and 1 guns defense (executed from a defensive start) required. Defensive perch setups will be conducted with 3000 ft, 6000 ft, and 9000 ft separation between aircraft. The guns defense start is at the discretion of the flight lead.

Performance Standards

Adheres to USMC Admin SOP.  
Manages fuel per the brief.  
Defeat initial weapons employment.  
Maneuver to deny follow-on WEZ.  
Neutralize attacker.

Separate or kill attacker.

Prerequisite. AA-260.

Ordinance. CATM-9, 40 Chaff/20 Flare for ALE-39 equipped aircraft/60 Chaff/60 Flare for ALE-47 equipped aircraft.

Range Requirements. AA, EXP.

AA-262

1.3 R 2 FA-18A/C/D A

Goal. Practice SSD, FQMD, Flat Scissors, Rolling Scissors and BFM against a Cat IV adversary from a neutral start. Emphasize energy management and assessment, game plans, offensive and defensive transition recognition, weapons employment, deck awareness and expendable usage.

Requirement. One SSD, Flat Scissors, Rolling Scissors, one neutral engagement from a known start, and one FQMD to an engagement. The altitude for known start engagements should be varied to demonstrate the impact of altitude on fighter performance and game plan.

Performance Standards

Deny opponent weapon employment opportunities.

Achieve first weapons employment opportunity.

Gain positional advantage.

Employ follow-on weapons.

Transition to offensive or defensive BFM. Separate or kill attacker.

For FQMD detect via SRR, RWR and or visual lookout.

Accurate ID.

Prerequisite. AA-261.

Ordinance. CATM-9, 40 Chaff/20 Flare for ALE-39 equipped aircraft/60 Chaff/60 Flare for ALE-47 equipped aircraft.

Range Requirements. AA, EXP.

AA-263

1.3 R 1 FA-18A/C/D vs. 1 Dissimilar Adversary A

Goal. Evaluate BFM skills versus a dissimilar adversary.

Requirement. Three engagements required for completion.

Performance Standards

Executes appropriate game plan for type adversary.

When applicable, employ mission performance standards for OBFM, DBFM, or HA.

Prerequisite. AA-262.

Ordinance. CATM-9, 40 Chaff/20 Flare for ALE-39 equipped aircraft/60 Chaff/60 Flare for ALE-47 equipped aircraft.

Range Requirements. AA, EXP.

External Syllabus Support. One dissimilar adversary. If FA-18 aircrew is not ACM qualified the adversary must be instructor qualified.

SAA-264

1.0

WTT/OFT S

Goal. Practice section maneuvering against a single CAT IV adversary with SAR-1 and IR-3 missiles. Conduct the appropriate radar mechanics against maneuvering targets post meld/pre-shot, and post shot. Conduct appropriate short-range radar mechanics post notch and post merge. Emphasize mutual support, proper radar mechanics, engaged communications, expendable usage, and minimizing time to kill.

Requirement. Complete a minimum of seven intercepts to include the following: 2 post meld pre-shot target maneuvers. 2 post shot target maneuvers. 2 post notch and in to the merge short-range radar mechanics. 1 complete intercept requiring a combination of the above skills.

Performance Standards

Uses proper communications throughout all phases of the intercept.

Execute proper sort/maneuvering targets/SRR mechanics IAW the USMC TACSOP.

Appropriate defensive reactions.

AA-265

1.3

R 2 FA-18A/C/D vs. 2 Dissimilar Adversaries A

Goal. Practice section maneuvering against (dissimilar) adversaries armed with IR-3 missiles from offensive, neutral, and defensive starts.

Requirement. One defensive engagement by a single adversary from a visual set and multiple entries from any aspect (by single adversary and section) in a tap-the-cap scenario are required for completion. No kills should occur prior to the initial merge for each engagement.

Performance Standards

Adheres to USMC Admin SOP.

Detect via SRR/RWR and visual lookout.

Accurate ID.

Effective section engaged maneuvering.

Takes valid shots.

Prerequisite. AA-262, SAA-264.

Ordinance. CATM-9, 40 Chaff/20 Flare for ALE-39 equipped aircraft/60 Chaff/60 Flare for ALE-47 equipped aircraft.

Range Requirements. AA, EXP.

External Syllabus Support. Two (dissimilar) adversaries.

SAA-266

1.0

WTT/OFT S

Goal. Conduct radar attacks against an unknown number of bandits with SAR-1 missiles. Emphasize section intercept

procedures, sorting, RWR tactics, weapons employment, and standardized communications.

Requirement. With a minimum of 40 NM separation, the fighters commence the intercept at medium altitude. The bogies commence the intercept at any altitude and airspeed, maneuvering. Fighter weapons control status is tight with PID criteria set by flight lead according to theater of operation. On this sortie, PID criteria will be satisfied in time to allow BVR weapons employment. Four intercepts required for completion.

Performance Standards

Uses proper communications throughout all phases of the intercept.  
Arrives at a valid forward quarter or rear quarter weapons envelope.  
Takes valid shots.  
Appropriate defensive reactions.

Prerequisite. SAA-264.

SAA-267

1.0                      R   WTT/TOFT   S

Goal. Conduct intercept against bogies with SAR-1 and IR-3 missiles in an EA environment.

Requirement. With a minimum of 40 NM separation, the fighters commence the intercept at medium altitude. The bogies commence the intercept at any altitude and airspeed, maneuvering. Bogies should use self-protect jamming techniques or be screened by a stand-off jammer. Fighter weapons control status is tight with PHID criteria set by flight lead according to theater of operation. Three intercepts required for completion.

Performance Standards

Uses proper communications throughout all phases of the intercept.  
Executes proper radar mechanics in a EA environment.  
Recognizes threat tactics and different jamming techniques.  
Takes valid shots.  
Timeline awareness.

Prerequisite. SAA-266.

AA-268

1.3                      R   2   FA-18A/C/D vs. 2 Adversaries A

Goal. Conduct radar attacks against an unknown number of bandits with SAR-1 missiles. Emphasize section intercept procedures, sorting, RWR tactics, weapons employment, and standardized communications.

Requirement. With a minimum of 40 NM separation, the fighters commence the intercept at medium altitude. The bogies commence the intercept at any altitude and airspeed, maneuvering. Fighter weapons control status is tight with PID criteria set by flight lead according to theater of operation. On this sortie, PID criteria will be satisfied in time to

allow BVR weapons employment. Four intercepts required for completion.

Performance Standards

Maintains mutual support.

Utilizes clear, concise communications IAW comm. brevity.

Arrives at a valid forward quarter or rear quarter weapons envelope.

Takes valid shots.

Appropriate defensive reactions.

Prerequisite. AA-265, SAA-266.

Ordinance. CATM-9, 40 Chaff/20 Flare for ALE-39 equipped aircraft/60 Chaff/60 Flare for ALE-47 equipped aircraft, and CATM-7/120.

Range Requirements. AA, EXP, MACH 1+, TACTS.

External Syllabus Support. Two (Dissimilar) Adversaries.

AA-269

1.3 R 2 FA-18A/C/D vs. 2 Dissimilar Adversaries A

Goal. Practice section VID intercepts versus a section of non-maneuvering/maneuvering bandits armed with SAR-1 missiles. Focus on radar mechanics, formation, communications, tactical timeline employment, and VID intercept mechanics.

Requirement. Commence the intercept with a minimum of 40 NM separation. Fighter weapons control status is tight with a PHID criteria that prevents weapons employment until a VID. Bandits weapons control status is unknown. Bandits will commence intercepts from between 1,000 ft and 40,000 ft and are cleared to maneuver. Bandits will maintain sortable formations throughout the intercepts and all bandit tactics will be complete NLT 15 NM prior to the merge. Three intercepts required for completion.

Performance Standards

Manages fuel per the brief.

Utilizes clear, concise communications IAW comm. brevity.

Achieve radar sort.

Maintain mutual support.

Execute the briefed VID game plan.

Achieve valid shot at the merge.

Prerequisite. AA-268.

Ordinance. CATM-9, 40 Chaff/20 Flare for ALE-39 equipped aircraft/60 Chaff/60 Flare for ALE-47 equipped aircraft, and CATM-7/120.

Range Requirements. AA, EXP, MACH 1+, TACTS.

AA-270

1.3 4 FA-18A/C/D vs. Unknown Adversaries A

Goal. Conduct a Division Fighter Mission against an unknown number of adversaries with SAR-1 and/or IR-3 missiles. Emphasize commit criteria, reset criteria, desired engagement

zone, targeting/sorting, on-board/off-board PHID, valid weapons employment, and standardized communications.

Requirement. With a minimum of 40 NM separation, the fighters commence the intercept against single or multiple groups. Fighter weapons control status is tight with PHID criteria that will allow for weapons employment according to timeline.

Adversaries present a level 3 or 4 bandit simulation IAW the USMC FA-18 TACSOP. On one intercept, PHID criteria will not be satisfied.

Performance Standards

Maintains mutual support.

Executes proper radar mechanics.

Targets as directed. Recognizes threat tactics.

Takes valid shots.

Prerequisite. AA-269.

Ordinance. CATM-9, 40 Chaff/20 Flare for ALE-39 equipped aircraft/60 Chaff/60 Flare for ALE-47 equipped aircraft, and CATM-7/120.

Range Requirements. AA, EXP, MACH 1+, TACTS.

External Syllabus Support. Minimum 2 adversaries.

7. Low Altitude Tactics (LAT)

a. Purpose. To develop proficiency in FA-18 low altitude tactics.

b. General

(1) Emphasize LAT procedures, communications, and maneuver techniques. Upon completion of the LAT stage, aircrew should be able to perform low altitude navigation, tactical ingress into a defended target at low altitude, and execute defensive maneuvers against surface-to-air or air-to-air threats.

(2) Flights shall be flown on an approved LAT course.

(3) SLAT-280 requires supervision of a LATI at the simulator console. LAT-281 and 282 require a LATI chase when the aircrew is not LAT qualified.

(4) Currency and altitude restrictions as stated in the T&R Program Manual apply.

(5) Aircraft should be configured with an operable VTR/CVRS, ALR-67, CATM-9, TPOD, KY-58, and chaff and flares.

(6) Upon completion of this stage, aircrew may be designated LAT qualified by their commanding officer.

c. Ground/Academic Training. Refer to MAWTS-1 Course Catalog.

d. Flight and Simulator Event Training. (3 Events, 3.6 Hours).

SLAT-280                      1.0                      WTT/OFT S

Goal. Practice two dimensional and three dimensional LAT and threat reactions. Emphasize LAT procedures, communications, and maneuver techniques.

Requirement. Perform 50% dive recoveries, Nav/Hard/Break turns, MAC, vertical jinks, straight ahead oblique jinks, turning oblique jinks, reverse oblique jinks and threat reactions.

Performance Standards

Recites all LAT rules from memory without error.  
Quickly responds to commands.  
Performs maneuvers as briefed.  
Remains above briefed minimum altitude.  
Adheres to dive recovery rules.

Prerequisite. AS-230-243.

LAT-281                      1.3                      R 2 FA-18A/C/D A

Goal. Develop proficiency in single ship conventional LAT. Emphasize LAT procedures, communications, and maneuver techniques.

Requirement. As a single ship, complete a circuit performing descent to comfort level, straight and level, ridgeline crossings, speed rush base line, and Nav/Hard/Break turns. Complete a second circuit performing 50 % rule, vertical jinks, straight ahead oblique jinks, turning oblique jinks, and reverse oblique jinks. Complete a third circuit performing 50% rule, guns jink, level S, SAM weave and SAM break.

Performance Standards

Quickly responds to commands from chase aircraft.  
Performs maneuvers as briefed.  
Remains above briefed minimum altitude.  
Adheres to dive recovery rules.

Prerequisite. SLAT-280.

Ordinance. CATM-9, 40 Chaff/20 Flare for ALE-39 equipped aircraft/60 Chaff/60 Flare for ALE-47 equipped aircraft.

Range Requirements. LAT.

LAT-282                      1.3                      2 FA-18A/C/D A

Goal. Develop proficiency in section conventional LAT and low altitude intercepts. Emphasize LAT procedures, communications, and maneuver techniques.

Requirement. Complete one circuit performing section descent to comfort level, straight and level, ridgeline crossings, and section called/uncalled turns. Complete a second circuit performing section threat reactions to section target attack. Complete a third circuit performing low altitude intercept



with the fighter at 300-500' AGL and the adversary at 600-1000' AGL.

Performance Standards

Uses standardized communication.  
Able to fly maneuvers in accordance with LAT rules.  
Performs maneuvers as briefed.  
Valid delivery IAW USMC TACSOP.  
Takes valid shots.

Prerequisite. LAT-281.

Ordinance. CATM-9, 40 Chaff/20 Flare for ALE-39 equipped aircraft/60 Chaff/60 Flare for ALE-47 equipped aircraft.

Range Requirements. LAT.

8. Close Air Support (CAS)

a. Purpose. To develop proficiency in the tactical employment of the FA-18 in the CAS role during day and night at medium altitude in a low to medium threat environment.

b. General. The commanding officer may authorize inert ordnance in lieu of live ordnance when necessary. Ensure required ordnance not available (TRK-598) code is logged. Aircraft should be configured with operable VTR/CVRS, ALR-67, CATM-9, TPOD, LDT, KY-58, DCS/VMF, MIDS, chaff, and flares. At the completion of this stage the PUI should be able to:

(1) Demonstrate proficiency in the execution of CAS under Type 1 attack control, day and night, from medium altitude.

(2) Deliver GP and forward firing ordnance on tactical targets both day and night in the CAS environment.

(3) Employ GP ordnance using reactive weaponeering principles.

(4) The aircrew should be familiar with the use of the following external agencies and how to integrate them in the CAS stage:

(a) MACCS integration.

(b) Supporting arms.

(c) Forward Air Controllers (FAC)/Joint Terminal Attack Controller (JTAC)/FAC Airborne (A).

(5) All actual and simulated weapons deliveries will be validated IAW the USMC FA-18 TACSOP.

c. Ground/Academic Training. See MAWTS-1 Course Catalog.

d. Flight and Simulator Event Training. (3 Events, 3.6 Hours).

SCAS-290

1.0

R WTT/OFT S

Goal. Review CAS execution using Type 1 terminal attack control.

Requirement. Conduct three attacks under Type 1 terminal attack control. Emphasize systems management, target area mechanics, reactive weaponeering, threat countertactics and tactical communication.

Performance Standards

Compliance with JCAS TTPs.

Effect on target.

Compliance with TAC abort parameters.

Valid weapons release.

TOT +/- 15 secs.

Prerequisite. SAS-230, AS-243.

Ordnance. 4 MK-82/3, 250 Rounds 25mm, TPOD and SEL 1.

CAS-291

1.3 R 2 FA-18A/C/D A

Goal. Conduct day CAS execution using Type 1 terminal attack control.

Requirement. Conduct three attacks under Type 1 terminal attack control. Emphasize systems management, target PID, target area mechanics, reactive weaponeering, threat countertactics and tactical communication.

Performance Standards

Compliance with JCAS TTPs.

Compliance with TAC abort parameters.

Valid delivery IAW USMC TACSOP.

Execution appropriate threat countertactics.

TOT +/- 15 secs.

Prerequisite. SCAS-290.

Ordnance. 4 Mk-82/83, 250 rnds of 20mm, 40 Chaff/20 Flare for ALE-39 equipped aircraft/60 Chaff/60 Flare for ALE-47 equipped aircraft.

Range Requirements. RSTD, TGT, SST, JCAS, TGT-MOVE, TGT-DISP.

External Syllabus Support. JTAC or FAC(A).

CAS-292

1.3 R 2 FA-18A/C/D A NS

Goal. Conduct night CAS execution using Type 1 terminal attack control.

Requirement. Conduct 3 attacks under Type 1 terminal attack control. Emphasize systems management, target PID, target area mechanics, IR marker employment if applicable, reactive weaponeering, and tactical communication.

Performance Standards

Compliance with JCAS TTPs.

Compliance with TAC abort parameters.

Valid delivery IAW USMC TACSOP.

Execution appropriate threat countertactics.  
TOT +/- 15 secs.

Prerequisite. NS-254, CAS-291.

Ordnance. 4 Mk-82/83, 250 rnds of 20mm, 40 Chaff/20 Flare for ALE-39 equipped aircraft/60 Chaff/60 Flare for ALE-47 equipped aircraft.

Range Requirements. RSTD, TGT, SST, JCAS, TGT-MOVE, TGT-DISP.

External Syllabus Support. JTAC or FAC(A).

132. CORE SKILL ADVANCED PHASE (300 LEVEL) TRAINING

1. General. This phase trains FA-18 A/C/D aircrew in OAS, AAW, and SEAD, and FA-18D aircrew FAC(A) and TAC(A). Completion of the 300 level syllabus is a prerequisite to start the section lead buildup syllabus (FAC(A) not withstanding).

2. Close Air Support (CAS)

a. Purpose. To develop proficiency in the tactical employment of the FA-18 in Type 2 and 3 CAS during day and night. Additionally, develop proficiency in urban CAS techniques.

b. General. The commanding officer may authorize inert ordnance in lieu of live ordnance when necessary. Ensure required ordnance not available (TRK-598) code is logged. Aircraft should be configured with operable VTR/CVRS, ALR-67, CATM-9, TPOD, LDT, KY-58, DCS/VMF, MIDS, chaff, and flares when possible. At the completion of this stage the PUI should be able to:

(1) Demonstrate proficiency in the execution of CAS under Type 2 and 3 terminal attack control, day and night, at medium altitude as a wingman.

(2) Demonstrate proficiency executing CAS in an urban environment.

(3) Deliver free fall, forward firing, and precision guided munitions on tactical targets both day and night in the CAS environment.

(4) Employ free fall ordnance using reactive weaponeering principles.

(5) The aircrew should be familiar with the use of the following external agencies and how to integrate them in the CAS stage:

(a) MACCS integration.

(b) Supporting arms.

(c) Forward Air Controllers (FAC)/Joint Terminal Attack Controller (JTAC)/FAC Airborne (A).

(d) All actual and simulated weapons deliveries will be validated IAW USMC FA-18 TACSOP.

c. Ground/Academic Training. See MAWTS-1 Course Catalog.

d. Flight and Simulator Event Training. (4 Events, 4.9 Hours).

<u>SCAS-300</u>	<u>1.0</u>	<u>WTT/OFT S</u>
<u>Goal.</u> Conduct CAS execution using Type 2 terminal attack control.		
<u>Requirement.</u> Conduct three attacks under Type 2 terminal attack control. Emphasize systems management, target area mechanics, reactive weaponeering, threat countertactics and tactical communication.		
<u>Performance Standards</u> Compliance with JCAS TTPs. Compliance with TAC abort parameters. Valid delivery IAW USMC TACSOP. TOT +/- 15 secs.		
<u>Prerequisite.</u> 200 Level complete.		
<u>Ordinance.</u> 2 JDAM, 2 GBU-10/12/16.		
<u>CAS-301</u>	<u>1.3</u>	<u>R 2 FA-18 A/C/D A</u>
<u>Goal.</u> Conduct day CAS using Type 2 and 3 terminal attack control.		
<u>Requirement.</u> Conduct two attack under Type 2 terminal attack control and one attack under Type 3 terminal attack control. Emphasize systems management, target PID, PGM employment, threat countertactics and tactical communication.		
<u>Performance Standards</u> Compliance with JCAS TTPs. Compliance with TAC abort parameters. Valid delivery IAW USMC TACSOP. Execution appropriate threat countertactics. TOT +/- 15 secs.		
<u>Prerequisite.</u> SCAS-300.		
<u>Ordinance.</u> 1 GBU-31/32/38, 2 GBU-10/12/16, 40 Chaff/20 Flare for ALE-39 equipped aircraft/60 Chaff/60 Flare for ALE-47 equipped aircraft.		
<u>Range Requirements.</u> RSTD, TGT, SST, EW, JCAS, TGT-DISP, TGT-MOVE, JDAM.		
<u>External Syllabus Support.</u> JTAC or FAC(A).		
<u>CAS-302</u>	<u>1.3</u>	<u>R 2 FA-18 A/C/D A NS</u>
<u>Goal.</u> Conduct night CAS using Type 2 and 3 terminal attack control.		
<u>Requirement.</u> Conduct two attacks during night under Type 2 terminal attack control and one attack under Type 3 terminal		

attack control. Emphasize systems management, target PID, PGM employment, threat countertactics and tactical communication.

Performance Standards

Compliance with JCAS TTPs.  
Compliance with TAC abort parameters.  
Valid delivery IAW USMC TACSOP.  
Execution appropriate threat countertactics.  
TOT +/- 15 secs.

Prerequisite. CAS-301.

Ordnance. 1 GBU-31/32/38, 2 GBU-10/12/16, 40 Chaff/20 Flare for ALE-39 equipped aircraft/60 Chaff/60 Flare for ALE-47 equipped aircraft.

Range Requirements. RSTD, TGT, SST, EW, JCAS, TGT-DISP, TGT-MOVE, JDAM.

External Syllabus Support. JTAC or FAC(A).

CAS-303

1.3                      2 FA-18 A/C/D A (NS)

Goal. Conduct urban CAS.

Requirement. Conduct three CAS attacks in an urban environment. Emphasize systems management, target PID, and weapons employment. This sortie can be completed using an actual urban area with simulated ordnance if an urban target complex is not available.

Performance Standards

Compliance with JCAS TTPs.  
Compliance with TAC abort parameters.  
Valid delivery IAW USMC TACSOP.  
Execution appropriate threat countertactics.  
TOT +/- 15 secs.

Prerequisite. CAS-302.

Ordnance. 1 GBU-31/32/38, 2 GBU-10/12/16, 40 Chaff/20 Flare for ALE-39 equipped aircraft/60 Chaff/60 Flare for ALE-47 equipped aircraft.

Range Requirements. RSTD, TGT, SST, EW, JCAS, URBN WPNS, TGT-DISP, TGT-MOVE, EXP, JDAM.

External Syllabus Support. JTAC or FAC(A).

3. Armed Reconnaissance (AR)

a. Purpose. To develop proficiency in conducting Armed Reconnaissance missions.

b. General. Emphasize mission planning, mutual support, target acquisition /recognition /identification, target area tactics and information flow through the C<sup>3</sup> system. The commanding officer may authorize inert

ordnance in lieu of live ordnance when necessary. Ensure required ordnance not available (TRK-598) code is logged. Aircraft should be configured with operable VTR/CVRS, ALR-67, CATM-9, TPOD, binoculars, LDT, KY-58, DCS/VMF, MIDS, chaff, and flares when possible.

c. Ground/Academic Training. See MAWTS-1 Course Catalog.

d. Flight and Simulator Event Training. (3 Events/3.9 Hours).

AR-310                      1.3                      R 2 FA-18A/C/D A (NS)

Goal. Conduct day med/high altitude AR utilizing GP ordnance. Emphasize mission planning, target precedence, search pattern, attack parameters, delivery modes, and information flow through the C<sup>3</sup> system.

Requirement. Conduct day med/high altitude GP AR to locate, plot, and destroy targets of opportunity. 1 GP ordnance delivery profile and 2 strafe profiles required for completion.

Performance Standards

Able to conduct visual reconnaissance of assigned area and detect targets.

Performs target attacks appropriate for scenario.

Minimizes threat exposure and performs appropriate threat countertactics.

Performs valid weapons deliveries IAW USMC TACSOP.

Prerequisite. 200 Level Complete.

Ordnance. 4 Mk-82/83/84, 250 rnds of 20mm, 40 Chaff/20 Flare for ALE-39 equipped aircraft/60 Chaff/60 Flare for ALE-47 equipped aircraft.

Range Requirements. RSTD, TGT, HE, SST, TGT-DISP, TGT-MOVE, EW, EXP, LSR.

AR-311                      1.3                      R 2 FA-18A/C/D A

Goal. Conduct day med/high altitude PGM AR. Emphasize mission planning, target precedence, search pattern, attack parameters, delivery modes, designation techniques, and information flow through the C<sup>3</sup> system.

Requirement. Conduct day med/high altitude PGM AR to locate and destroy targets of opportunity. 1 LMAV delivery profile, 1 LGB delivery profile, and 2 strafe profiles required for completion.

Performance Standards

Able to conduct visual and sensor reconnaissance of assigned area and detect targets.

Employs appropriate weapon and tactics for threat and target type.

Minimizes threat exposure and performs appropriate threat countertactics.

Performs valid weapons deliveries IAW USMC TACSOP.

Prerequisite. AR-310.

Ordnance. 1 Laser MAV (live or captive), 1 GBU-10/12/16, 250 rnds of 20mm, 40 Chaff/20 Flare for ALE-39 equipped aircraft/60 Chaff/60 Flare for ALE-47 equipped aircraft.

Range Requirements. RSTD, TGT, HE, SST, EW, LSR, TGT-DISP, TGT-MOVE, EXP.

AR-312

1.3 R 2/4 FA-18A/C/D A NS

Goal. Conduct night PGM AR. Emphasize mission planning, target precedence, search pattern, sensor employment, attack parameters, delivery modes, designation techniques, and information flow through the C<sup>3</sup> system.

Requirement. Conduct night med/high altitude PGM AR to locate and destroy targets of opportunity. 1 LMAV delivery profile, 1 LGB delivery profile, and 2 strafe profiles required for completion.

Performance Standards

Able to conduct visual/sensor reconnaissance of assigned area and detect targets.

Employs appropriate weapon and tactics for threat and target type.

Minimizes threat exposure and performs appropriate threat countertactics.

Performs valid weapons deliveries IAW USMC TACSOP.

Coordination of one element of AR required for completion.

Prerequisite. AR-311.

Ordnance. 1 Laser MAV (live or captive), 1 GBU-10/12/16, 250 rnds of 20mm, 40 Chaff/20 Flare for ALE-39 equipped aircraft/60 Chaff/60 Flare for ALE-47 equipped aircraft.

Range Requirements. RSTD, TGT, HE, SST, EW, LSR, TGT-DISP, TGT-MOVE, EXP.

4. Strike Coordination and Reconnaissance (SCAR)

a. Purpose. To develop proficiency in conducting Strike Coordination and Reconnaissance missions.

b. General. Emphasize mission planning, mutual support, target acquisition/recognition/identification, target marking, strike asset coordination and information flow through the C<sup>3</sup> system. The commanding officer may authorize inert ordnance in lieu of live ordnance when necessary. Ensure required ordnance not available (TRK-598) code is logged. Operable VTR/CVRS, ALR-67, CATM-9, TPOD, binoculars, KY-58, DCS/VMF, MIDS, chaff, and flares when possible.

c. Ground/Academic Training. See MAWTS-1 Course Catalog.

d. Flight and Simulator Event Training. (2 Events, 2.6 Hours).

SCAR-320

1.3 R 2 FA-18A/C/D A

Goal. Conduct day SCAR. Emphasize locating targets in accordance with a target precedence list, notifying AR assets

of target locations and current threat, and proper information flow through the C<sup>3</sup> system.

Requirement. Coordination of one element of AR required for completion.

Performance Standards

Effectively locates and passes target locations to AR assets. Prioritizes targets in accordance with target precedence list. Effectively coordinate(s) target attacks. Effectively passes target and threat information to AR assets and C<sup>3</sup>.

Prerequisite. AR-312.

Ordinance. Two pods of 2.75" / 5.0" rockets, 2 Mk-82/83/84, 250 rnds of 20mm, 40 Chaff/20 Flare for ALE-39 equipped aircraft/60 Chaff/60 Flare for ALE-47 equipped aircraft.

Range Requirements. RSTD, HE, EW, SST, TGT-DISP, TGT-MOVE, LSR.

External Syllabus Support. 1 section AR assets.

SCAR-321

1.3 R 2 FA-18A/C/D A NS

Goal. Conduct night SCAR. Emphasize locating targets in accordance with a target precedence list, notifying AR assets of target locations and current threat, and proper information flow through the C<sup>3</sup> system.

Requirement. Coordination of one element of AR required for completion.

Performance Standards

Effectively locates and passes target locations to AR assets. Prioritizes targets in accordance with target precedence list. Effectively coordinate(s) target attacks. Effectively passes target and threat information to AR assets and C<sup>3</sup>.

Prerequisite. SCAR-320.

Ordinance. Two pods of 2.75" / 5.0" rockets, 2 Mk-82/83/84, 250 rnds of 20mm, 40 Chaff/20 Flare for ALE-39 equipped aircraft/60 Chaff/60 Flare for ALE-47 equipped aircraft.

Range Requirements. RSTD, HE, EW, SST, TGT-DISP, TGT-MOVE, LSR.

External Syllabus Support. 1 section AR assets.

5. Anti-Air Warfare (AAW)

a. Purpose. To utilize core skill in employing the FA-18 in Anti-Air Warfare missions. Emphasize mission planning, mutual support, knowledge of air-to-air weapons and tactics, sensor usage, standardized communication, weapons employment, AIC integration, short range radar mechanics, and targeting.



b. General

(1) AIC, data link and TACTS Range should be utilized to the maximum extent possible. If co-located with AIC controllers, a face-to-face brief and debrief should be conducted for all engagements.

(2) To gain and maintain proficiency in AAW missions.

c. Crew Requirements. None.

d. Ground/Academic Training. Refer to MAWTS-1 Course Catalog.

e. Flight and Simulator Event Training. (9 Events, 11.1 Hours).

SAAW-330            1.0                    R   WTT/OFT   S

Goal. Conduct an OCA (Sweep) mission against an unknown number of adversaries with SAR-1 and IR-3 missiles. Emphasize section intercept procedures, targeting and sorting, valid weapons employment, and standardized communication.

Requirement. With a minimum of 40 NM separation, the fighter commences the intercept at medium altitude. Adversaries commence the intercept at any altitude and airspeed, maneuvering. Adversaries present a level 3 bandit simulation IAW the USMC FA-18 TACSOP. Fighter weapons control status is tight with PHID criteria set by flight lead according to theater of operation. Four runs required for completion.

Performance Standards

Executes proper radar mechanics.  
Targets as directed.  
Recognizes threat tactics.  
Takes valid shots.  
Timeline awareness.

Prerequisite. AA-260-270.

AAW-331            1.3                    R   2 FA-18A/C/D vs. 2+ DISS ADV   A   (NS)

Goal. Conduct an OCA (Screen/Close Escort) mission against an unknown number of adversaries (Dissimilar Adversaries (DISS ADV)) with SAR-1 and/or IR-3 missiles. Emphasize section intercept procedures, maintaining proper formation, targeting and sorting, VID weapons employment, and standardized communications.

Requirement. With a minimum of 40 NM separation, the fighters commence the OCA (Screen/Close Escort) intercept at medium altitude. The adversaries commence the intercept at any altitude and airspeed, maneuvering. Adversaries present a level 3 or 4 bandit simulation IAW the USMC FA-18 TACSOP. Fighter weapons control status is tight with PHID criteria that prevent weapons employment until a VID on at least 1 run. Three intercepts required for completion.

Performance Standards

Maintains mutual support.  
Executes proper radar mechanics.  
Targets as directed.

Recognizes threat tactics.  
Takes valid shots.  
Timeline awareness.  
Tactical decision making IAW mission objectives.

Prerequisite. SAAW-330.

Ordnance. CATM-9, 40 Chaff/20 Flare for ALE-39 equipped aircraft/60 Chaff/60 Flare for ALE-47 equipped aircraft, and CATM-7/120.

Range Requirements. AA, EXP, MACH 1+, TACTS.

External Syllabus Support. Two or more adversaries.

AAW-332

1.3 R 4 FA-18A/C/D vs. 2+ DISS ADV A

Goal. Conduct a division OCA (Sweep/PSS) mission against an unknown number of adversaries with SAR-1 missiles. Emphasize division intercept procedures, maintaining proper formation, targeting and sorting, valid weapons employment, and standardized communications.

Requirement. Three runs required for completion. Adversaries present a level 3 or 4 bandit simulation IAW the USMC FA-18 TACSOP. Fighter weapons control status is tight with PHID criteria set by flight lead according to theater of operation.

Performance Standards

Maintains mutual support.  
Executes proper radar mechanics.  
Targets as directed.  
Recognizes threat tactics.  
Takes valid shots.  
Timeline awareness.  
Tactical decision making IAW mission objectives.

Prerequisite. AAW-331.

Ordnance. CATM-9, 40 Chaff/20 Flare for ALE-39 equipped aircraft/60 Chaff/60 Flare for ALE-47 equipped aircraft, and CATM-7/120.

Range Requirements. AA, EXP, MACH 1+, TACTS.

External Syllabus Support. Two or more dissimilar adversaries, TACTS range.

AAW 333

1.3 R 4 FA-18A/C vs. 2+ DISS ADV A NS

Goal. Conduct a night division OCA (Sweep/PSS) mission against an unknown number of bogies (Dissimilar Adversaries) with SAR-2 or AR-1 missiles. Emphasize division intercept procedures, maintaining proper formation, targeting and sorting, valid weapons employment, and standardized communications.

Requirement. Three runs required for completion. Adversaries present a level 3 or 4 bandit simulation IAW the USMC FA-18

TACSOP. Fighter weapons control status is tight with PHID criteria set by flight lead according to theater of operation.

Performance Standards

Maintains mutual support.  
Executes proper radar mechanics.  
Targets as directed.  
Recognizes threat tactics.  
Takes valid shots.  
Timeline awareness.  
Tactical decision making IAW mission objectives.

Prerequisite. AA-332.

Ordinance. CATM-9, 40 Chaff/20 Flare for ALE-39 equipped aircraft/60 Chaff/60 Flare for ALE-47 equipped aircraft, and CATM-7/120.

Range Requirements. AA, EXP, MACH 1+, TACTS.

External Syllabus Support. Two or more dissimilar adversaries, TACTS range adversaries.

AAW-334

1.3 R 2+ FA-18A/C vs. 2+ Adversaries A (NS)

Goal. Conduct section or division attacks against an unknown number of adversaries with SAR-1 and/or IR-3 missiles in an EA environment.

Requirement. With a minimum of 40 NM separation, the fighters commence the intercept at medium altitude. The adversaries commence the intercept at any altitude and airspeed, maneuvering. Adversaries should use self-protect jamming techniques or be screened by a stand-off jammer. Adversaries present a level 3 or 4 bandit simulation IAW the USMC FA-18 TACSOP. Fighter weapons control status is tight with PHID criteria set by flight lead according to theater of operation. Three intercepts required for completion.

Performance Standards

Executes proper radar mechanics in a EA environment.  
Recognizes threat tactics and different jamming techniques.  
Maintains mutual support.  
Executes proper radar mechanics.  
Targets as directed.  
Recognizes threat tactics.  
Takes valid shots.  
Timeline awareness.  
Tactical decision making IAW mission objectives.

Prerequisite. AA-260-270.

Ordinance. CATM-9, 40 Chaff/20 Flare for ALE-39 equipped aircraft/60 Chaff/60 Flare for ALE-47 equipped aircraft, and CATM-7/120.

Range Requirements. AA, EXP, MACH 1+, TACTS.

External Syllabus Support. Two adversaries with self-protect jamming equipment or two adversaries and one stand-off jammer.

SAAW-335                      1.0                      R   WTT/OFT   S

Goal. Conduct a DCA (Point Defense) mission against an unknown number of adversaries with SAR-1 and/or IR-3 missiles. Emphasize commit criteria, reset criteria, desired engagement zone, targeting/sorting, valid weapons employment, and standardized communications.

Requirement. One defined vulnerability period required for completion. Fighter weapons control status is tight with PHID criteria set by flight lead according to theater of operation. Adversaries present a level 3 or 4 bandit simulation IAW the USMC FA-18 TACSOP. On one run, PID criteria will not be satisfied until after planned weapons employment range.

Performance Standards

Executes proper radar mechanics.  
Targets as directed.  
Recognizes threat tactics.  
Takes valid shots.  
Timeline awareness.  
Tactical decision making IAW mission objectives.

Prerequisite. AA-260-270.

External Syllabus Support. Dissimilar Adversaries.

AAW-336                      1.3                      R   2 FA-18A/C/D vs. 2+ Adversaries   A

Goal. Conduct a day section DCA/Area Defense mission against an unknown number of adversaries with SAR-1 missiles. Emphasize commit criteria, reset criteria, desired engagement zone, targeting/sorting, valid weapons employment, and standardized communications.

Requirement. One defined vulnerability period required for completion. Adversaries present a level 3 or 4 bandit simulation IAW the USMC FA-18 TACSOP. Fighter weapons control status is tight with PHID criteria set by flight lead according to theater of operation. On one run, PHID criteria will not be satisfied until after planned weapons employment range.

Performance Standards

Maintains mutual support.  
Executes proper radar mechanics.  
Targets as directed.  
Recognizes threat tactics.  
Takes valid shots.  
Timeline awareness.  
Tactical decision making IAW mission objectives.

Prerequisite. SAAW-335.

Ordinance. CATM-9, 40 Chaff/20 Flare for ALE-39 equipped aircraft/60 Chaff/60 Flare for ALE-47 equipped aircraft, and CATM-7/120.

Range Requirements. AA, EXP, MACH 1+, TACTS.

External Syllabus Support. Two or more adversaries, TACTS range.

AAW-337

1.3 R 4 FA-18A/C/D vs. 2+ Adversaries A

Goal. Conduct a day division DCA/Area Defense against an unknown number of adversaries with SAR-2 or AR-1 missiles. Emphasize commit criteria, reset criteria, desired engagement zone, targeting/sorting, valid weapons employment, and standardized communications.

Requirement. One defined vulnerability period required for completion. Adversaries present a level 3 or 4 bandit simulation IAW the USMC FA-18 TACSOP. Fighter weapons control status is tight with PHID criteria set by flight lead according to theater of operation. On one run, PHID criteria will not be satisfied until after planned weapons employment range.

Performance Standards

Maintains mutual support.  
Executes proper radar mechanics.  
Targets as directed.  
Recognizes threat tactics.  
Takes valid shots.  
Timeline awareness.  
Tactical decision making IAW mission objectives.

Prerequisite. AAW-336.

Ordinance. CATM-9, 40 Chaff/20 Flare for ALE-39 equipped aircraft/60 Chaff/60 Flare for ALE-47 equipped aircraft, and CATM-7/120.

Range Requirements. AA, EXP, MACH 1+, TACTS.

External Syllabus Support. Two or more adversaries, TACTS range.

AAW-338

1.3 R 4 FA-18A/C vs. 2+ Adversaries A NS

Goal. Conduct a night division DCA/Area Defense against an unknown number of adversaries with SAR-2 or AR-1 missiles. Emphasize commit criteria, reset criteria, desired engagement zone, targeting/sorting, valid weapons employment, and standardized communications.

Requirement. One defined vulnerability period required for completion. Adversaries present a level 3 or 4 bandit simulation IAW the USMC FA-18 TACSOP. Fighter weapons control status is tight with PHID criteria set by flight lead according to theater of operation. On one run, PHID criteria will not be satisfied until after planned weapons employment range.

Performance Standards

Maintains mutual support.  
Executes proper radar mechanics.  
Targets as directed.  
Recognizes threat tactics.

Takes valid shots.  
Timeline awareness.  
Tactical decision making IAW mission objectives.

Prerequisite. AAW-337.

Ordnance. CATM-9, 40 Chaff/20 Flare for ALE-39 equipped aircraft/60 Chaff/60 Flare for ALE-47 equipped aircraft, and CATM-7/120.

Range Requirements. AA, EXP, MACH 1+, TACTS.

External Syllabus Support. Two or more adversaries, TACTS range.

6. Suppression of Enemy Air Defenses (SEAD)

- a. Purpose. To develop proficiency in SEAD weapons and tactics.
- b. General. Emphasize SEAD weapon capabilities and limitations, cockpit management, designation techniques, delivery modes and attack parameters. Aircraft should be configured with operable VTR/CVRS, ALQ-126B, ALR-67, TPOD, CATM-9, KY-58, MIDS, chaff, and flares.
- c. Ground/Academic Training. Refer to MAWTS-1 Course Catalog.
- d. Flight and Simulator Event Training. (3 Events/2.8 Hours).

SSEAD-340      0.5      R WTT/OFT S

Goal. Practice employment of the Joint Standoff Weapon (JSOW). Emphasize weapon capabilities and limitations, cockpit displays, and employment techniques.

Requirement. Plan on TAMPS/JMPS and conduct multiple ordnance deliveries. Minimum of three deliveries required for completion.

Performance Standards

Effectively mission plans for JSOW.  
Delivers JSOW IAW TACSOP tactics with TOT +/- 15 secs.

Prerequisite. MAWTS-1 JSOW lecture.

SSEAD-341      1.0      R WTT/OFT S

Goal. Practice employment of the AGM-88 HARM. Emphasize weapon capabilities and limitations, cockpit displays, and employment techniques.

Requirement. Plan mission on TAMPS or JMPS. Employ the AGM-88 against a ground based emitter. Three PB shots, three TOO shots, a HARM designation, and a Manually Modified Entry (MME) required for completion.

Performance Standards

Effectively mission plans for HARM.  
Delivers PB HARM IAW TACSOP tactics with TOT +/- 15 secs.  
Effectively employs HARM in TOO mode.

Prerequisite. MAWTS-1 HARM Modes of Operation and Displays lecture.

SEAD-342

1.3

R 2 FA-18A/C/D A (NS)

Goal. Practice airborne employment of the AGM-88 HARM. Emphasize mission planning, weapon capabilities and limitations, cockpit displays and employment techniques.

Requirement. Plan mission on TAMPS or JMPS. Conduct two PB HARM shots with TOTs utilizing USMC FA-18 TACSOP tactics. Conduct two TOO HARM shots utilizing USMC FA-18 TACSOP tactics.

Performance Standards

Able to effectively mission plan for HARM.

Able to deliver PB HARM IAW TACSOP tactics with TOT +/- 15 secs.

Able to effectively employ HARM in TOO mode.

Prerequisite. SSEAD-341.

Ordnance. 1 CATM-88, TACTS pod, 40 Chaff/20 Flare for ALE-39 equipped aircraft/60 Chaff/60 Flare for ALE-47 equipped aircraft.

Range Requirements. MOA, TACTS, Hi Fi EW, ARM.

7. Air Interdiction (AI)

a. Purpose. To develop proficiency in conducting AI missions.

b. General. Emphasize mission planning, tactical decision making, mutual support and target acquisition/destruction. Ordnance types may be substituted based on the mission, threat and to vary tactics and training requirements. The commanding officer may authorize inert ordnance in lieu of live ordnance when necessary. Ensure required ordnance not available (TRK-598) code is logged. Aircraft should be configured with operable VTR/CVRS, ALQ-126B, ALR-67, CATM-9, TPOD, KY-58, CIT, MIDS, chaff, and flares when possible.

c. Ground/Academic Training. Refer to MAWTS-1 Course Catalog.

d. Flight and Simulator Event Training. (5 Events/6.2 Hours).

SAI-350

1.0

R WTT/OFT S

Goal. Conduct a section AI mission against a target with integrated air defenses. Emphasize air-to-surface and air-to-air mission planning, tactical decision making, and target acquisition.

Requirement. Attack and destroy a defended surface target. Plan a strike route using a mission planning system. Weaponize a specific target. Execute ingress, ordnance delivery and egress tactics consistent with the threat.

Performance Standards

Recognizes and reacts appropriately to threats.

Adheres to planned air-to-air timeline and tactics.

Delivers weapons on planned DMPI.  
Adheres to TACSOP valid delivery parameters.  
Takes valid shots.

Prerequisite. 200 level complete and AAW-338 (A/C only).

Ordinance. 1 GBU-10/12/16, 1 JDAM, 1 radar missile, 2 AIM-9.

AI-351

1.3

R 2 FA-18A/C/D vs. 2 Adversaries A

Goal. Conduct a section, day, low altitude, GP ordnance AI mission against a target with integrated air defenses. Emphasize air-to-surface and air-to-air mission planning, tactical decision making, mutual support, target acquisition and target destruction.

Requirement. Attack and destroy a surface target. Plan a strike route using a mission planning system. Weaponeer a specific target. Execute ingress, ordnance delivery and egress tactics consistent with the threat.

Performance Standards

Recognizes and reacts appropriately to threats.  
Adheres to planned air-to-air timeline and tactics.  
Delivers weapons on planned DMPI.  
Adheres to TACSOP valid delivery parameters.  
Takes valid shots.

Prerequisite. SAI-350.

Ordinance. 4 Mk-82/83/84, CATM-9, CATM-120, 40 Chaff/20 Flare for ALE-39 equipped aircraft/60 Chaff/60 Flare for ALE-47 equipped aircraft.

Range Requirements. TGT, AA, EW, SST, TACTS, TGT-DISP, LSR.

External Syllabus Support. Two adversaries and one tanker (if AAR required).

AI-352

1.3

R 4 FA-18A/C/D vs. 2 Adversaries A

Goal. Conduct a division, day, high altitude, PGM AI mission against a target with integrated air defenses. Emphasize air-to-surface and air-to-air mission planning, tactical decision making, mutual support, target acquisition and target destruction.

Requirement. Attack and destroy a surface target. Plan a strike route using a mission planning system. Weaponeer a specific target. Execute ingress, ordnance delivery and egress tactics consistent with the threat.

Performance Standards

Recognizes and reacts appropriately to threats.  
Adheres to planned air-to-air timeline and tactics.  
Delivers weapons on planned DMPI.  
Adheres to TACSOP valid delivery parameters.  
Takes valid shots.



Prerequisite. AI-351.

Ordnance. 2 GBU-31/32/38 or 2 GBU-10/12/16, CATM-9, CATM-120, 40 Chaff/20 Flare for ALE-39 equipped aircraft/60 Chaff/60 Flare for ALE-47 equipped aircraft.

Range Requirements. RSTD, TGT, AA, EW, SST, TACTS, TGT-DISP, LSR, JDAM.

External Syllabus Support. Two adversaries and one tanker (if AAR required).

AI-353

1.3 R 4 FA-18A/C/D A NS

Goal. Conduct a division, night, high altitude, PGM AI mission against a target with integrated surface to air defenses. This flight will not be aggressed by adversaries IOT emphasize surface to air countertactics. Additionally, emphasize air-to-surface, tactical decision making, mutual support, target acquisition and target destruction.

Requirement. Attack and destroy a surface target. Plan a strike route using a mission planning system. Weaponeer a specific target. Execute ingress, ordnance delivery and egress tactics consistent with the threat. Execute division countertactics against surface to air threats.

Performance Standards

Recognizes and reacts appropriately to surface to air threats. Delivers weapons on planned DMPI. Adheres to TACSOP valid delivery parameters. Adheres to TACSOP element de-confliction/lost sight game plans if applicable.

Prerequisite. AI-352.

Ordnance. 2 GBU-10/12/16, CATM-9, CATM-120, 40 Chaff/20 Flare for ALE-39 equipped aircraft/60 Chaff/60 Flare for ALE-47 equipped aircraft.

Range Requirements. RSTD, TGT, AA, EW, SST, TACTS, TGT-DISP, LSR.

External Syllabus Support. One tanker (if AAR required).

AI-354

1.3 R 4 FA-18A/C/D vs. 2 Adversaries A NS

Goal. Conduct a division, night, high altitude, PGM AI mission against a target with integrated air defenses. Emphasize air-to-surface and air-to-air mission planning, tactical decision making, mutual support, target acquisition and target destruction.

Requirement. Attack and destroy a surface target. Plan a strike route using a mission planning system. Weaponeer a specific target. Execute ingress, ordnance delivery and egress tactics consistent with the threat.

Performance Standards

Recognizes and reacts appropriately to threats.

Adheres to planned air-to-air timeline and tactics.  
Delivers weapons on planned DMPI.  
Adheres to TACSOP valid delivery parameters.  
Takes valid shots.

Prerequisite. AI-353.

Ordnance. 2 GBU-31/32/38, CATM-9, CATM-120, 40 Chaff/20 Flare for ALE-39 equipped aircraft/60 Chaff/60 Flare for ALE-47 equipped aircraft.

Range Requirements. RSTD, TGT, AA, EW, SST, TACTS, TGT-DISP, LSR, JDAM.

External Syllabus Support. Two adversaries and one tanker (if AAR required).

8. Forward Air Controller (Airborne) FAC(A) - FA-18D

a. Purpose. To develop proficiency in FAC(A).

b. General

(1) The JCAS AP MOA 2004-02 (referred to as the JFAC(A) MOA) provided the minimum standard for certification and qualification as a FAC(A). Meeting the T&R syllabus requirements for FAC(A) will meet or exceed the JFAC(A) MOA requirements. The JFAC(A) MOA can be found on the SIPRNET at <http://jfaca.mawts1.usmc.smil.mil>. Aircrew conducting FAC(A) operations shall comply with the policies contained in the most recent version of the JFAC(A) MOA.

(2) Prior to beginning this stage, FA-18D pilots shall be designated as a section leader by the commanding officer and be AR proficient. WSOs shall be BAS, CAS and AR proficient.

(3) Nonqualified aircrew will fly FAC(A)-382 through FAC(A)-390 with a MAWTS-1 certified FA-18D FAC(A)I designated by the commanding officer. The FAC(A)I may be in the FAC(A) or escort aircraft. The FAC(A)I may simulate the ground FAC if one is not available.

(4) Upon successful completion of this stage of training through FAC(A)-390 and compliance with JFAC(A) MOA certification requirements, the commanding officer may issue a T&R FAC(A) qualification as well as a JFAC(A) MOA FAC(A) certification.

(5) A non-qualified FAC(A) aircrew must have a FAC(A)I in the section and may not control CAS aircraft delivering actual ordnance closer than the most conservative of minimum safe distance, 1000 meters, or range regulations. A FAC(A) qualified aircrew (pilot and WSO for FA-18D) may not employ CAS aircraft delivering actual ordnance closer than the most conservative of minimum safe distance or range regulations.

(6) In an FA-18D aircraft separate work-up sorties are preferred for each crew member. If both FA-18D aircrew are undergoing FAC(A) qualification concurrently, then they should split the tactical briefing and debriefing responsibilities in each flight.

(7) FAC(A)-388 through FAC(A)-390 are exercises in integrating the fire support assets previously controlled separately in the FAC(A) syllabus. The intent is to expose prospective FAC(A) aircrew to the unique challenges

posed by each asset when integrated with FW CAS. Each sortie should concentrate on the integration procedures for a different asset, culminating in a final FAC(A)-390 checkride using multiple fire support assets. If FAC(A)-388 integrates IDFS assets, FAC(A)-389 should integrate RW/UAV CAS and vice versa. If RW/UAV assets are integrated, emphasis is on combined or sectorized sequential attacks. If IDFS is integrated, emphasis is on altitude or lateral de-confliction of fires effects using standard SEAD templates. At a minimum, IDFS must be integrated into one of the sorties in the FAC(A)-388 through FAC(A)-390 range, with FAC(A)-388 being the preferred sortie.

(8) Failure to meet JFAC(A) MOA proficiency or currency requirements, or loss of proficiency (delinquent refly factor) for all associated FAC(A) qualification events (per paragraph 500.1.b), constitutes loss of the FAC(A) qualification.

(9) Aircrew who have lost the FAC(A) qualification due to failure to meet JFAC(A) MOA Proficiency or Currency requirements shall regain the FAC(A) qualification by successfully completing events as delineated in the appropriate T&R syllabus under the supervision of a qualified FAC(A). At a minimum, such aircrew must complete the number and category (appropriate night, control type, ordnance, etc.) of controls the individual failed to accomplish during the appropriate Currency or Proficiency period (Currency - 2 controls in 90 days. Proficiency - 6 controls in a six month period; 4 of these 6 controls must be Type I, 1 control must be at night, and at least 1 must control an asset that expends ordnance).

(10) Aircrew who have lost the FAC(A) qualification due to exceeding the refly interval in all associated qualification events, or who have been FAC(A) unqualified for 18 consecutive months per the JFAC(A) MOA, shall regain qualification by completing the Refresher FAC(A) syllabus under the supervision of a FAC(A)I and conduct a minimum of 6 controls (4 of these 6 controls must be Type I, 1 control must be at night, and at least 1 must control an asset that expends ordnance).

(11) The intent of the T&R refly intervals is to meet the JFAC(A) MOA minimum requirements for currency/proficiency controls:

JFAC(A) MOA requirements				
Interval	Total Controls	Type 1	Night	Ordnance
90 days	2	*	*	*
180 days	6	4	1	1
* No specified requirements in these areas for this interval				

(12) Escort aircraft that are not flown by a FAC(A)I conducting instruction during a FAC(A) workup will log a FAC(A)-391 (FAC(A) Escort) code. Escort aircraft that are flown by a FAC(A)I conducting instruction during a FAC(A)/FAC(A)I workup will log the appropriate FAC(A) code and log the FAC(A) controls. Escort aircraft will not fulfill the external support requirement of a FW CAS element for any FAC(A) qualification workup sortie.

c. Ground/Academic Training. Refer to MAWTS-1 Course Catalog.

d. Flight and Simulator Event Training. (12 Events, 15 Hours).

SFAC(A)-380      1.0      WTT/OFT S

Goal. Type 1/2/3 FAC(A) Control procedures.

Requirement. Conduct Type 1/2/3 FAC(A) Controls. Emphasize C<sup>3</sup> Integration, Target Area Flow/Timing, Sensor Management, Switchology and Crew Resource Management. Two Type 1, two Type 2 and two Type 3 controls required for completion. FAC(A)I at the simulator console must simulate C3 agencies, TACP and CAS aircraft.

Performance Standards

Correctly uses aircraft systems for target coordinate and 9-line generation.

Ensures proper coordination and approval for CAS attacks.

Positions FAC(A) aircraft appropriately to provide marking and control while executing FAC(A) profiles appropriate for threat/friendly locations/systems and environment.

Executes FAC(A) Type 1/2/3 control TTPs IAW JCAS using proper terminology.

Prerequisite. CAS-303 and SCAR-321.

SFAC(A)-381

1.0

WTT S

Goal. Adverse weather, High-Threat (restrictive) FAC(A) Control procedures.

Requirement. Conduct Type 1 High-threat FAC(A) Controls. Emphasize C3 Integration, Target Area Flow/Integration/Timing, Sensor Management, Switchology and Crew Resource Management. Four Type 1 controls required for completion. SEAD CFF mission must be given for each TOT. FAC(A)I at the simulator console must simulate C<sup>3</sup> agencies, TACP, Indirect Fire assets and CAS aircraft. Simulated weather is overcast at 8,000 ft.

Performance Standards

Correctly uses aircraft systems for target coordinate and 9-line generation.

Ensures proper coordination and approval for IDF and CAS attacks.

Employs proper communications format with the firing unit.

Positions FAC(A) aircraft appropriately to provide marking and control while executing FAC(A) profiles appropriate for threat/friendly locations/systems and environment.

Executes FAC(A) Type 1/2/3 control TTPs IAW JCAS using proper terminology.

Prerequisite. SFAC(A)-380.

FAC(A)-382

1.3

1 FA-18D and 1 Escort A

Goal. Introduce FAC(A) FW Type 1 and 2 control procedures with Laser/PGMs in a low (permissive) threat environment.

Requirement. Perform visual/sensor reconnaissance of three separate targets on a tactical range, generating target coordinates with aircraft systems. Plot targets on gridded imagery/chart and prepare target briefs. Control two Type 1 and two Type 2 attacks by FW aircraft utilizing level and roll-in delivery profiles. Use appropriate CAS briefing and control procedures. Perform authentication procedures. Deliver or coordinate LASER mark on target and guide one LGW to impact. Provide BHA. Four controls required for

completion. If a range that permits Type 2 control is not available, Type 2 control may be evaluated with simulated JDAM/LGB deliveries.

Performance Standards

Executes appropriate Search/Detection/ID profiles.  
Correctly uses aircraft systems for target coordinate and 9-line generation.  
Provides LASER mark using proper J-LASER terminology and successfully guides LGW to impact, if required.  
Executes FAC(A)/CAS attack profiles appropriate for threat/friendly locations/systems and environment.  
Executes FAC(A) Type 1/2 control TTPs IAW JCAS using proper terminology.

Prerequisite. SFAC(A)-381.

Ordinance. TPOD with working LASER, 2 GBU-10/12/16, 250 rnds of 20mm, 40 Chaff/20 Flare for ALE-39 equipped aircraft/60 Chaff/60 Flare for ALE-47 equipped aircraft.

Range Requirements. RSTD, JCAS, SST, EXP.

External Syllabus Support. One or two FW CAS elements with live, inert or captive PGMs or Laser Guided Weapons and a ground FAC. LSTs are desired to aid in Type 1 control.

FAC(A)-383

1.3 R 1 FA-18D and 1 Escort A

Goal. Introduce FAC(A) FW Type 1/3 control procedures with GP ordnance in a low (permissive) threat environment.

Requirement. Perform visual/sensor reconnaissance of three separate targets on a tactical range, generating target coordinates with aircraft systems. Plot targets on gridded imagery/chart and prepare target briefs. Control three Type 1 and one Type 3 attacks by FW aircraft utilizing low threat tactics and GP Ordnance. Use appropriate CAS briefing and control procedures. Perform authentication procedures. Deliver or coordinate marking rounds on target, with a minimum of one mark via aircraft ordnance. Demonstrate the ability to provide timely, accurate corrections for CAS aircraft, and the ability to provide talk-ons. Provide BHA. Four controls required for completion.

Performance Standards

Executes appropriate Search/Detection/ID profiles.  
Correctly uses aircraft systems for target coordinate and 9-line generation.  
Provides accurate verbal description during talk-on attacks. When required, marks the target with a CEP less than 300 meters.  
Executes FAC(A)/CAS attack profiles appropriate for threat/friendlies/systems and environment.  
Executes FAC(A) Type 1/3 control TTPs IAW JCAS using proper terminology.

Prerequisite. SFAC(A)-381.

Ordnance. Two pods 2.75"/5.0" RP rockets, 40 Chaff/20 Flare for ALE-39 equipped aircraft/60 Chaff/60 Flare for ALE-47 equipped aircraft. TPOD with working LASER desired.

Range Requirements. RSTD, JCAS, SST, EXP.

External Syllabus Support. One or two FW CAS elements with live or inert GP ordnance and a ground FAC.

FAC(A)-384

1.3 1 FA-18D and 1 Escort A (NS)

Goal. Introduce FAC(A) RW Type 1, 2, and 3 control procedures in a low (permissive) threat environment.

Requirement. Perform visual/sensor reconnaissance of three targets on a tactical range, generating target coordinates with aircraft systems. Plot targets on gridded imagery/chart and prepare target briefs. Control two Type 1, two Type 2 and one Type 3 attacks by attack helicopters. Use appropriate RW CAS briefing and control procedures. Perform authentication procedures. Deliver marking rounds/talk-on (rockets/guns/TOW) or provide laser designation (Hellfire). If conducted at night, use appropriate tactics for target illumination if necessary. For Type 1 (rockets/guns) controls emphasis should be on providing corrections, ensuring compliance with limit-of-advance and providing threat lookout for RW assets in the target area. For Type 1 (TOW) controls emphasis should be on providing a target sort and ensuring no friendlies in the SDZ. Two TOW/Hellfire controls are required for completion. One of the two controls must have the FAC(A) lasing for Hellfire employment. Simulated TOW and captive Hellfire are acceptable.

Performance Standards

Executes appropriate Search/Detection/ID profiles.  
Correctly uses aircraft systems for target coordinate and 9-line generation.  
Provides accurate verbal description during talk-on attacks. If required, marks the target with a CEP less than 300 meters.  
Provides LASER mark using proper J-LASER terminology.  
Executes FAC(A)/CAS attack profiles appropriate for threat/friendlies/systems and environment.  
Executes FAC(A) Type 1/2/3 control TTPs IAW JCAS using proper terminology.

Prerequisite. SFAC(A)-381.

Ordnance. TPOD with working LASER, 2 GBU-10/12/16 or 2 pods 2.75"/5.0" RP rockets, 40 Chaff/20 Flare for ALE-39 equipped aircraft/60 Chaff/60 Flare for ALE-47 equipped aircraft.

Range Requirements. RSTD, JCAS, SST, EXP.

External Syllabus Support. One or two RW CAS elements with live/captive Hellfire and a ground FAC.

FAC(A)-385

1.3 1 FA-18D and 1 Escort A (NS)

Goal. Introduce FAC(A) Type 1/2/3 control procedures in an urban environment.

Requirement. Perform visual/sensor reconnaissance of three separate targets in an urban environment, generating target coordinates with aircraft systems. Plot targets on Gridded Reference Graphic (GRG) and prepare target briefs. Control two Type 1 and two Type 2/3 attacks by aircraft. Use appropriate CAS briefing and control procedures. Deliver or coordinate marks as required. Demonstrate the ability to provide timely, accurate corrections for CAS aircraft, and the ability to provide GRG-based talk-ons. Integrate fires with ground FAC via datalink from TPOD to remote station, if so equipped. Four controls required for completion.

Performance Standards

Executes appropriate Search/Detection/ID profiles.  
Correctly uses aircraft systems for target coordinate, 9-line and BHA generation.  
Provides accurate verbal description during GRG talk-on attacks.  
Executes FAC(A)/CAS attack profiles appropriate for threat/friendly locations/systems and environment.  
Executes FAC(A) Type 1/2/3 control TTPs IAW JCAS using proper terminology.

Prerequisite. SFAC(A)-381.

Ordnance. TPOD with working LASER and ISR Datalink, 1 AGM-65E (captive or live), 1 GBU-10/12/16, 250 rnds of 20mm, 40 Chaff/20 Flare for ALE-39 equipped aircraft/60 Chaff/60 Flare for ALE-47 equipped aircraft.

Range Requirements. JCAS, SST, EXP, URBN WPNS.

External Syllabus Support. One or more FW or RW CAS elements, and a ground FAC. Ground FAC/JTAC should have capability to receive TPOD video via datalink.

FAC(A)-386

1.3                      1 FA-18D and 1 Escort A (NS)

Goal. Introduce mortar/artillery airspot.

Requirement. Perform visual/sensor reconnaissance on three tactical targets, generating target coordinates with aircraft systems. Plot targets on gridded imagery/chart and prepare a call-for-fire brief. Emphasize accurate call-for-fire communications and adjustment procedures. One LASER adjust fire, one immediate suppression, one SEAD mission, and one high threat SEAD mission. Emphasis on high-threat airspot is FAC(A) positioning to provide redundant mark and accurate corrections for IDFS with simulated weather of overcast at 8,000 ft MSL. Both SEAD missions must include marking and suppression targets.

Performance Standards

Executes appropriate Search/Detection/ID profiles.  
Correctly uses aircraft systems for target coordinate and 9-line generation.  
Employs proper communications format with the firing unit.  
Provides timely and accurate corrections to the firing unit.  
Completes an immediate suppression CFF within 60 seconds of receiving the mission from the FAC/FO.

Prerequisite. SFAC(A)-381.

Ordinance. TPOD with working LASER, 40 Chaff/20 Flare for ALE-39 equipped aircraft/60 Chaff/60 Flare for ALE-47 equipped aircraft.

Range Requirements. JCAS, SST, EXP.

External Syllabus Support. Indirect Fire Support (IDFS) asset (mortars or artillery) and a ground FAC or FO. IDFS asset requires a minimum of 10 HE rds, 2 WP rds, and 8 Illum rds.

FAC(A)-387

1.3 R 1 FA-18D and 1 Escort A NS

Goal. Introduce FAC(A) Night Systems procedures in a low (permissive) threat environment.

Requirement. Perform visual/sensor reconnaissance of three separate targets on a tactical range, generating target coordinates with aircraft systems. Plot targets on gridded imagery/chart and prepare target briefs. Control two Type 1 and two Type 2 attacks by FW aircraft. Use appropriate CAS briefing and control procedures. Perform authentication procedures. Deliver or coordinate marking rounds or IR/LASER mark on target. At least one Type 1 control must use an IR pointer, if so equipped. At least one Type 1 control must be supported by air-delivered covert illumination (LUU-19). Demonstrate the ability to provide timely, accurate corrections for CAS aircraft. Provide BHA. Four controls required for completion. If a range that permits Type 2 control is not available, Type 2 control may be evaluated with simulated JDAM/LGB deliveries. If LUU-19s are not available, LUU-2s/Illum rockets may be substituted.

Performance Standards

Executes appropriate Search/Detection/ID profiles.  
Correctly uses aircraft systems for target coordinate and 9-line generation.  
Provides IR/LASER mark using proper terminology.  
Executes FAC(A)/CAS attack profiles appropriate for threat/friendly locations/systems and environment.  
Executes FAC(A) Type 1/2 control TTPs IAW JCAS using proper terminology.

Prerequisite. SFAC(A)-381.

Ordinance. TPOD with working LASER, 2 GBU-10/12/16 or 2 pods 2.75"/5.0" RP rockets, 4 LUU-19/LUU-2 or 1 pod 2.75" Illum rockets, 40 Chaff/20 Flare for ALE-39 equipped aircraft/60 Chaff/60 Flare for ALE-47 equipped aircraft.

Range Requirements. JCAS, SST, EXP.

External Syllabus Support. One or two FW CAS elements and a ground FAC.

FAC(A)-388

1.3 R 1 FA-18D and 1 Escort A

Goal. Introduce FAC(A) two-element integration procedures in a day, medium (restrictive) threat environment.



Requirement. Perform visual/sensor reconnaissance of three separate targets on a tactical range, generating target coordinates with aircraft systems. Plot targets on gridded imagery/chart and prepare target briefs. Control four Type 1 attacks by FW aircraft utilizing medium threat tactics. A minimum of two CAS profiles must be pop-up attacks. Emphasis during these pop-up attacks is on FAC(A) positioning for redundant marking and Type 1 control. Deliver or coordinate marks on target. Demonstrate the ability to provide timely, accurate corrections for CAS aircraft. Provide BHA. Four controls required for completion.

Performance Standards

Executes appropriate Search/Detection/ID profiles.  
Correctly uses aircraft systems for target coordinate and 9-line generation.  
Ensures proper coordination and approval for IDF, rotary wing and fixed wing attacks.  
Executes FAC(A)/CAS attack profiles appropriate for threat/friendly locations/systems and environment.  
Executes FAC(A) Type 1/2/3 control TTPs IAW JCAS using proper terminology.

Prerequisite. FAC(A)-382-387.

Ordinance. 2 GBU-10/12/16 or 2 pods 2.75"/5.0" RP rockets, 40 Chaff/20 Flare for ALE-39 equipped aircraft/60 Chaff/60 Flare for ALE-47 equipped aircraft. TPOD with working LASER desired.

Range Requirements. JCAS, EXP.

External Syllabus Support. One FW CAS element, One additional Fire support asset (RW CAS/UAV CAS/IDFS) and a ground FAC. If IDFS is to be used 10 HE rds, 4 WP rds for marking or suppression required.

FAC(A)-389

1.3 R 1 FA-18D and 1 Escort A NS

Goal. Introduce FAC(A) two-element integration procedures in a night, medium (restrictive) threat environment.

Requirement. Perform visual/sensor reconnaissance of three separate targets on a tactical range, generating target coordinates with aircraft systems. Plot targets on gridded imagery/chart and prepare target briefs. Control two Type 1 and two Type 2 attacks by FW aircraft utilizing medium threat tactics. Deliver or coordinate marks on target. Demonstrate the ability to provide timely, accurate corrections for CAS aircraft. Provide BHA. Four controls required for completion. If a range that permits Type 2 control is not available, Type 2 control may be evaluated with simulated JDAM/LGB deliveries.

Performance Standards

Executes appropriate Search/Detection/ID profiles.  
Correctly uses aircraft systems for target coordinate and 9-line generation.  
Ensures proper coordination and approval for IDF, rotary wing and fixed wing attacks.

Executes FAC(A)/CAS attack profiles appropriate for threat/friendly locations/systems and environment.  
Executes FAC(A) Type 1/2/3 control TTPs IAW JCAS using proper terminology.

Prerequisite. FAC(A)-388.

Ordnance. TPOD with working LASER, 2 GBU-10/12/16 or 2 pods 2.75"/5.0" RP rockets, 40 Chaff/20 Flare for ALE-39 equipped aircraft/60 Chaff/60 Flare for ALE-47 equipped aircraft.

Range Requirements. JCAS, EXP.

External Syllabus Support. One FW CAS element, One additional Fire support asset (RW CAS/UAV CAS/IDFS) and a ground FAC. If IDFS is to be used 10 HE rds, 4 WP rds for marking or suppression required.

FAC(A)-390

1.3 R 1 FA-18D and 1 Escort A (NS)

Goal. Practice FAC(A) multi-element and supporting arms integration.

Requirement. Perform visual/sensor reconnaissance, generating target coordinates with aircraft systems. Plot targets on gridded imagery/chart and prepare target briefs. Plan and execute at least one integrated attack utilizing 3 or more elements. For FW/RW/UAV integration, emphasis is on conducting a sectorized simultaneous or combined sequential attack. For CAS/IDFS integration, time, altitude or lateral de-confliction can be used. This evaluation sortie should be flown in a MAGTF level exercise if possible.

Performance Standards

Executes appropriate Search/Detection/ID profiles.  
Correctly uses aircraft systems for target coordinate and 9-line generation.  
Ensures proper coordination and approval for IDF and CAS attacks.  
Executes FAC(A)/CAS attack profiles appropriate for threat/friendly locations/systems and environment.  
Executes FAC(A) Type 1/2/3 control TTPs IAW JCAS using proper terminology.

Prerequisite. FAC(A)-389.

Ordnance. TPOD with working LASER, 2 GBU-10/12/16 or 2 pods 2.75"/5.0" RP rockets, 40 Chaff/20 Flare for ALE-39 equipped aircraft/60 Chaff/60 Flare for ALE-47 equipped aircraft.

Range Requirements. JCAS, EXP.

External Syllabus Support. Minimum of 3 Fire Support assets (FW CAS/RW CAS/UAV CAS/IDFS) and a ground FAC. IDFS asset requires 10 HE rds, 4 WP rds.

FAC(A)-391

1.3 2 FA-18D A (NS)

Goal. Introduce escort procedures for FAC(A) wingman.

Requirement. Perform wingman duties during a FAC(A) mission. Provide mutual support, threat lookout, and duties assigned by the FAC(A) aircraft. Emphasis on communications relay and backup marks.

Performance Standards

Maintains mutual support and threat lookout throughout mission.

Maintains situational awareness to rapidly assist FAC(A) with backup marks and alternate radio communications.

Prerequisite. 200 level complete.

Ordinance. TPOD with working LASER, 1 AGM-65E (captive or live), 1 GBU-10/12/16 or 2 pods 2.75"/5.0", 40 Chaff/20 Flare for ALE-39 equipped aircraft/60 Chaff/60 Flare for ALE-47 equipped aircraft.

Range Requirements. MOA, JCAS, EXP.

External Syllabus Support. 2+ CAS aircraft. Indirect fire and C<sup>3</sup> agencies preferred.

9. Tactical Air Coordinator (Airborne) TAC(A)

a. Purpose. To develop proficiency in TAC(A).

b. General

(1) This phase of training is designed for experienced aircrew.

(2) Prior to commencing the TAC(A) syllabus, aircrew must be FAC(A) qualified. Non-qualified aircrew will fly TAC(A)-390 and TAC(A)-391 with a MAWTS-1 certified TAC(A)I designated by the commanding officer. The TAC(A)I may be in the escort aircraft.

(3) The commanding officer may designate aircrew as TAC(A) qualified upon successful completion of this phase of training through TAC(A)-391.

c. Ground/Academic Training. Refer to MAWTS-1 Course Catalog.

d. Flight and Simulator Event Training. (2 Events, 2.6 Hours).

TAC(A)-392      1.3      R 1 FA-18D A (NS)

Goal. Introduce TAC(A) procedures.

Requirement. Integrate CAS with a single terminal controller [FAC/FAC(A)]. Manage airspace and multiple ingressing/egressing aircraft. Conduct airborne relay of target briefs. Minimum of two CAS elements required for completion.

Performance Standards

Able to accurately copy immediate JTAR.

Able to coordinate timely CAS in response to immediate request.

Able to pass CAS aircraft BDA via the C<sup>3</sup> system.

Prerequisite. FAC(A)-390, FAC(A) qualified.

Range Requirements. MOA.

External Syllabus Support. Two CAS elements and one terminal controller [FAC/FAC(A)].

TAC(A)-393      1.3      1 FA-18D A (NS)

Goal. Practice TAC(A) procedures with multiple terminal controllers.

Requirement. Perform coordination of attack aircraft and multiple terminal controllers. Receive attack briefings from the FAC/FAC(A) and assign appropriate CAS aircraft. Coordinate target mark and control with the FAC/FAC(A). Manage assigned airspace and provide command and control system with essential elements of information. Perform authentication procedures (as required).

Performance Standards

Able to accurately copy immediate JTAR.

Able to coordinate timely CAS in response to immediate request.

Able to pass CAS aircraft BDA via the C3 system.

Prerequisite. TAC(A)-392.

Range Requirements. MOA.

External Syllabus Support. FAC, FAC(A), and 1 to 4 CAS elements.

### 133. CORE PLUS PHASE (400 LEVEL) TRAINING

1. General. This phase contains Core Plus skill training a community may accomplish. Although Core Plus Training events may provide valuable training opportunities, they are not measured as part of unit SORTS reporting. Skills contained in this level are associated with high risk, low probability of execution, and/or are theater/basing specific. This phase of training allows additional unit training flexibility.

#### 2. Field Expeditionary/Carrier Landing Qualification (ECQ)

a. Purpose. To practice for carrier operations or qualify for EAF operations.

b. General. Each FCLP simulator is a prerequisite for the corresponding training flight when qualification is aboard a CV. Each FCLP flight is a training flight for CV qualification. Completion of ECQ 402 completes the EAF qualification syllabus. Completion of ECQ 404 completes the CV qualification syllabus.

c. Ground Training. IAW LSO NATOPS.

d. Flight and Simulator Event Training. (5 Events, 6.2 Hours).

SECQ-400      1.0      R OFT S

Goal. Conduct simulated carrier landings using Case I and Case III procedures. Emphasize pattern procedures, landing technique, deck procedures, and emergency procedures.

Requirement. Perform Case I and two Case III recoveries to multiple carrier landings. Four passes required for completion. Simulator must be monitored by an LSO.

External Syllabus Support. LSO.

ECQ-401

1.3 R 1 FA-18A/C/D A

Goal. Practice day FCLP procedures or qualify for day expeditionary landing operations.

Requirement. For FCLPs perform touch and go's under the control of an LSO. Six touch and go's required for completion. For EQ, perform 4 touch and go's, an arrested landing, and a launch from an expeditionary airfield.

Performance Standards

Fly 5 Fair [(OK)] passes IAW LSO NATOPS Criteria. Responds quickly and safely to all communications and comm out signals from LSO if required.

Prerequisite. SECQ-400.

Range Requirement. EAF or airfield with FCLP pattern, carrier box, and fresnel lens.

External Syllabus Support. LSO.

ECQ-402

1.3 R 1 FA-18A/C/D A N

Goal. Practice night FCLP procedures or qualify for night expeditionary landing operations.

Requirement. For FCLPs perform touch and go's under the control of an LSO. Six touch and go's required for completion. For EQ, perform four touch and go's, an arrested landing, and a launch from an expeditionary airfield.

Performance Standards

Fly five Fair [(OK)] passes IAW LSO NATOPS Criteria. Responds quickly and safely to all communications and comm out signals from LSO if required.

Prerequisite. ECQ-401.

Range Requirement. EAF or airfield with FCLP pattern, carrier box, and fresnel lens. For CQ, CV-compatible ACLS or ICLS.

External Syllabus Support. LSO.

ECQ-403

1.3 R 1 FA-18A/C/D A

Goal. Qualify for day carrier landing operations.

Requirement. IAW LSO NATOPS.

Performance Standards

IAW LSO NATOPS.

Prerequisite. ECQ-402.

External Syllabus Support. LSO.

ECQ-404                      1.3                      R 1 FA-18A/C/D A N

Goal. Qualify for night carrier landing operations.

Requirement. IAW LSO NATOPS.

Performance Standards  
IAW LSO NATOPS.

Prerequisite. ECQ-403.

External Syllabus Support. LSO.

3. War-at-Sea (WAS)

a. Purpose. To conduct sea control missions.

b. General. These sorties are designed to be flown by a squadron as part of their training program in preparation for deployment as part of an embarked CVW.

c. Ground/Academic Training. Refer to NSAWC and applicable Strike-Fighter Wing Weapons School courses.

d. Flight and Simulator Event Training. (3 Events, 3.6 Hours).

SWAS-410                      1.0                      R WTT S

Goal. Conduct simulated mine-laying operations. Emphasize mine line planning, proper stores management, switchology, and mine placement.

Requirement. Perform a minimum of three runs using flight director(FD) mode and one run using AUTO.

Performance Standards  
Mine placement IAW mission planning.  
Mine delivery IAW specified profile.  
Proper use of Flight Director mode.

WAS-411                      1.3                      R 2 FA-18A/C A (NS)

Goal. Conduct a Sea Surface Control (SSC) mission in support of the Anti-Surface Warfare Commander's objectives. Emphasize target acquisition, identification, command and control coordination, and weapons employment, if required.

Requirement. Conduct SSC in the assigned sector to locate, classify, identify, and engage surface contacts.

Performance Standards  
Able to locate assigned targets using all available sensors.  
Able to classify and identify surface contacts based on briefing and mission planning.  
Obtains mission recorder data and/or target photographs of assigned targets.  
Engage surface contacts with appropriate weapons.

Use clear, concise, correct communication with command and control agencies to maintain information flow.

Prerequisite. LAT Qualified (LAT-282) and AR-312.

Range Requirement. MOA.

External Syllabus Support Required. Controlling naval surface platform.

WAS-412

1.3 R 2 FA-18A/C A (NS)

Goal. Conduct a section or division War-at-Sea Exercise (WASEX) strike mission. Emphasize mission planning, target acquisition, tactical decision-making, mutual support, threat reaction, and target destruction.

Requirement. Attack and destroy hostile naval forces. Select appropriate weapons for assigned target/target sets. Execute ingress, ordnance delivery, and egress tactics consistent with the threat.

Performance Standards

Able to locate assigned targets using all available sensors.  
Able to classify and identify surface contacts based on briefing and mission planning.

Maintains pre-briefed formation and mutual support.

Recognizes and reacts appropriately to threats.

Engage surface contacts with appropriate weapons.

Use clear, concise, correct communication with command and control agencies to maintain information flow.

Prerequisite. AI-352.

Range Requirements. MOA.

External Syllabus Support Required. Controlling naval surface platform.

4. Night Systems (NS)

a. Purpose. To develop proficiency using Night Vision Devices (NVDs) in the low altitude environment.

b. General

(1) A MAWTS-1 certified NSI (Low) pilot flight lead is required to fly with non-NSQ Low pilots for NS-430 through NS-432 in FA-18C aircraft. A MAWTS-1 certified NSI (Low) pilot flight lead and an NSI (Low) Pilot/WSO crewed with the non-NSQ Low aircrew are required for FA-18Ds.

(2) At the discretion of the commanding officer, NSQ Low aircrew may fly any night or night optional event in the T&R with the aid of NVDs. NSQ Low aircrew may fly to a minimum altitude of 1000 ft AGL in LLL conditions (lux less than 0.0022) and down to 300 ft AGL in HLL conditions (lux greater than 0.0022).

(3) After successful completion of NS-432, the aircrew is eligible to be designated NSQ Low qualified by the commanding officer.

(4) Aircrew shall be LAT and NSQ HI qualified prior to NSQ Low training. Consult T&R Program Manual for LAT and NS training policy.

c. Ground/Academic Training. Refer to MAWTS-1 Course Catalog.

d. Flight and Simulator Event Training. (3 Events, 3.9 Hours).

NS-430

1.3

2 FA-18A/C/D A NS

Goal. Practice low altitude ingress, target acquisition and target attacks at night in the LAT environment.

Requirement. Conduct a section low level and section attacks. One low level and four section attacks on a scored raked range required for completion.

Performance Standards

Knows and understands visual illusions associated with NVD usage.

Achieves a valid ordnance deliveries IAW the TACSOP valid delivery requirements.

Adheres to tactical abort parameters.

Prerequisite. NSQ Hi (NS-254) and LAT Qualified (LAT-282).

Ordnance. 6 MK-76, 40 Chaff/20 Flare for ALE-39 equipped aircraft/60 Chaff/60 Flare for ALE-47 equipped aircraft.

Range Requirements. RSTD, RKD RNG, EXP.

External Syllabus Support. Approved MTR, scored raked range.

NS-431

1.3

2 FA-18A/C/D A NS

Goal. Introduce night single ship conventional LAT using NVDs. Emphasize LAT procedures using NVDs, communications, and maneuver techniques.

Requirement. As a single ship, perform descent to CL, straight and level, ridgeline crossings, and Nav/Hard/Break turns and Level S. Two circuits required for completion, the first circuit at CL no lower than 500 ft AGL and the remaining circuits at CL no lower than 300 ft AGL.

Performance Standards

Knows and understands visual illusions associated with NVD usage.

Knows and understands mission cross check times.

Prerequisite. NS-430.

Range Requirements. LAT.

External Syllabus Support. Certified LAT course.

NS-432

1.3

R 2 FA-18A/C/D A NS

Goal. Introduce night section 2 dimensional LAT using NVDs and evaluate Night Systems procedures.



Requirement. As a wingman, perform descent to CL, straight and level, turns, ridgeline crossings, night formations, section level S, and section attacks. Two circuits required for completion, the first circuit at CL no lower than 500 ft AGL and the remaining circuits at CL no lower than 300 ft AGL.

Performance Standards

Able to maintain formation in the LAT environment.  
Knows guidelines for NVD use outlined in T&R Program Manual.  
Executes successful target attack and maintains mutual support.  
Achieves valid deliveries IAW the TACSOP valid delivery requirements.  
Adheres to tactical abort parameters.

Prerequisite. NS-431.

Ordnance. 6 MK-76, 40 Chaff/20 Flare for ALE-39 equipped aircraft/60 Chaff/60 Flare for ALE-47 equipped aircraft.

Range Requirements. LAT.

External Syllabus Support. Certified LAT course.

5. Escort (ESC)

a. Purpose. To develop proficiency in conducting convoy and assault support escort missions.

b. General. Emphasize mission planning, tactical decision making, element positioning, threat acquisition, neutralization or destruction. Aircraft should be configured with operable VTR/CVRS, ALR-67, CATM-9, targeting FLIR, KY-58, chaff, and flares when possible.

c. Ground/Academic Training. Refer to MAWTS-1 Course Catalog.

d. Flight and Simulator Event Training. (2 Events, 2.6 Hours).

ESC-440                      1.3                      R 2 FA-18A/C/D A (NS)

Goal. Conduct convoy escort. Emphasize mission planning, target precedence, search pattern, attack parameters, delivery modes, designation techniques, and information flow through the C<sup>3</sup> system.

Requirement. Conduct convoy escort along a route to locate and destroy targets of opportunity in a low or medium threat environment.

Performance Standards

Locate and attack targets.  
Informs convoy leader of threats.  
Maintain mutual support with convoy.  
Effectively communicates status of convoy to C<sup>3</sup> agencies.

Prerequisite. 200 level complete, AR-312.

Ordnance. CATM-9, 4 BDU-45/MK-83 inert, 40 Chaff/20 Flare for ALE-39 equipped aircraft/60 Chaff/60 Flare for ALE-47 equipped aircraft.

Range Requirements. RSTD, LSR, TGT-DISP, TGT-MOVE, EXP, TGT.

External Syllabus Support. Minimum 1 vehicle convoy. 2 rotary wing escort aircraft desired.

ESC-441

1.3 R 2 FA-18A/C/D A (NS)

Goal. Conduct assault support escort. Emphasize mission planning, target precedence, search pattern, attack parameters, delivery modes, designation techniques, and information flow through the C<sup>3</sup> system.

Requirement. Conduct assault support along a route to locate and destroy targets of opportunity in a low or medium threat environment.

Performance Standards

Locate and attack targets.

Inform assault support flight of threats.

Maintain mutual support with assault support package.

Effectively communicates status of assault support package to C<sup>3</sup> agencies.

Prerequisite. 200 level complete, AR-312.

Ordnance. CATM-9, 4 BDU-45/MK-83 inert, 40 Chaff/20 Flare for ALE-39 equipped aircraft/60 Chaff/60 Flare for ALE-47 equipped aircraft.

Range Requirements. RSTD, LSR, TGT-DISP, TGT-MOVE, EXP, TGT.

External Syllabus Support. Minimum 1 Helicopter/Assault support package.

## 6. Anti-Air Warfare (AAW)

a. Purpose. To utilize core skills in employing the FA-18 in Anti-Air Warfare missions.

b. General. Emphasize mission planning, mutual support, knowledge of air-to-air weapons and tactics, sensor usage, standardized communication, weapons employment, AIC integration, short range radar mechanics, and targeting.

c. Ground/Academic Training. Refer to MAWTS-1 Course Catalog.

d. Flight and Simulator Event Training. (1 Events, 1.3 Hours).

AAW-450

1.3 R 2 FA-18A/C/D vs. 1+ Rotary Wing/Prop Aircraft A (NS)

Goal. Introduce aircrew to helicopter/prop aircraft attack. Emphasize optimum weapons employment profiles.

Requirement. Conduct visual attacks against helicopters/prop aircraft using appropriate captive air-to-air and simulated air-to-ground ordnance. One attack with a radar missile, one attack with the CATM-9, one attack with the air-to-air gun, one attack with the air-to-ground gun, and one attack with GP bomb required for completion.

Performance Standards

Maintains offensive position on adversary aircraft.  
Valid air-to-air and air-to-ground weapons employment.

Prerequisite. ACM and LAT qualified, AAW-338.

Ordnance. CATM-9, 40 Chaff/20 Flare for ALE-39 equipped aircraft/60 Chaff/60 Flare for ALE-47 equipped aircraft, and CATM-7/120.

Range Requirements. AA, EXP.

External Syllabus Support. One or more helicopters/prop aircraft.

7. Large Force Exercise (LFE)

a. Purpose. To conduct advanced LFE missions.

b. General. Emphasize mission planning, large force integration both ground and airborne, administrative and tactical decision making, and mission accomplishment. Aircraft should be configured with operable VTR/CVRS, ALR-67, CATM-9, TACTS pod, targeting FLIR, KY-58, chaff, and flares when possible. Upon the completion of the LFE log the LFE T&R code and the 300 level AAW or AI T&R code.

c. Ground/Academic Training. None.

d. Flight and Simulator Event Training. (2 Events, 2.6 Hours).

LFE-470                      1.3                      R 6+ FA-18A/C/D vs. 4+ Adversaries A

Goal. Participate in a day LFE. Emphasize mission planning, integration, decision making and mission accomplishment.

Requirement. Participate in the planning and execution of a day LFE AI, OCA or DCA mission with a minimum of 10 aircraft.

Performance Standards

Effectively integrates into the LFE package.

Prerequisite. 200 level complete.

Ordnance. TBD.

Range Requirements. AA, TGT, EXP, MACH 1+, LSR, SST, EW, JDAM, TGT-DISP.

External Syllabus Support. One tanker (if AAR required), 4 or more adversaries.

LFE-471                      1.3                      R 6+ FA-18A/C/D vs. 4+ Adversaries A NS

Goal. Participate in a night LFE. Emphasize mission planning, integration, decision making and mission accomplishment.

Requirement. Participate in the planning and execution of a night LFE AI, OCA or DCA mission with a minimum of 10 aircraft.

Performance Standards

Effectively integrates into the LFE package.

Prerequisite. 200 level complete.

Ordinance. TBD.

Range Requirements. AA, TGT, EXP, MACH 1+, LSR, SST, EW, JDAM, TGT-DISP.

External Syllabus Support. One tanker (if AAR required), 4 or more adversaries.

8. Forward Air Controller (Airborne) FAC(A)

a. Purpose. To develop proficiency in FAC(A).

b. General

(1) The JCAS AP MOA 2004-02 (referred to as the JFAC(A) MOA) provided the minimum standard for certification and qualification as a FAC(A). Meeting the T&R syllabus requirements for FAC(A) will meet or exceed the JFAC(A) MOA requirements. The JFAC(A) MOA can be found on the SIPRNET at <http://jfaca.mawts1.usmc.smil.mil>. Aircrew conducting FAC(A) operations shall comply with the policies contained in the most recent version of the JFAC(A) MOA.

(2) Prior to beginning this stage, FA-18A/C pilots will be either a division leader with prior ground FAC or FAC(A) experience or a Mission Commander.

(3) FA-18A/C FAC(A) pilots will log 400-level codes for their FAC(A) syllabus [i.e. FAC(A)-383 becomes FAC(A)-483]. FAC(A)-491 through FAC(A)-496 sorties are not required for initial FAC(A) qualification and are FAC(A) core plus sorties for both FA-18D and FA-18A/C.

(4) Nonqualified aircrew will fly FAC(A)-482 through FAC(A)-490 with a MAWTS-1 certified FA-18A/C FAC(A)I or and FA-18D FAC(A)I crew designated by the commanding officer. The FAC(A)I will be in the escort aircraft. The FAC(A)I may simulate the ground FAC if one is not available.

(5) Upon successful completion of this stage of training through FAC(A)-490 and compliance with JFAC(A) MOA certification requirements, the commanding officer may issue a T&R FAC(A) qualification as well as a JFAC(A) MOA FAC(A) certification.

(6) A non-qualified FAC(A) pilot must have a FAC(A)I in the section and may not control CAS aircraft delivering actual ordnance closer than the most conservative of minimum safe distance, 1000 meters, or range regulations. A FAC(A) qualified pilot may not employ CAS aircraft delivering actual ordnance closer than the most conservative of minimum safe distance or range regulations.

(7) FAC(A)-488 through FAC(A)-490 are exercises in integrating the fire support assets previously controlled separately in the FAC(A) syllabus. The intent is to expose prospective FAC(A) aircrew to the unique challenges posed by each asset when integrated with FW CAS. Each sortie should concentrate on the integration procedures for a different asset, culminating in a final FAC(A)-490 checkride using multiple fire support assets. If FAC(A)-488 integrates IDFS assets, FAC(A)-389 should integrate RW/UAV CAS and

vice versa. If RW/UAV assets are integrated, emphasis is on combined or sectorized sequential attacks. If IDFS is integrated, emphasis is on altitude or lateral de-confliction of fires effects using standard SEAD templates. At a minimum, IDFS must be integrated into one of the sorties in the FAC(A)-388/488 through FAC(A)-490 range, with FAC(A)-488 being the preferred sortie.

(8) Due to the high-task loading nature of the FAC(A) mission, pilots who achieved their initial FAC(A) qualification in an FA-18D, will complete the entire qualification syllabus in an FA-18A/C under the supervision of a FAC(A)I, in accordance with paragraph (4) above, prior to being FAC(A) qualified in an FA-18A/C squadron. An FA-18D FAC(A)I may attain an FA-18A/C FAC(A)I in accordance with the requirements of the MAWTS-1 Course Catalog.

(9) Failure to meet JFAC(A) MOA proficiency or currency requirements, or loss of proficiency (delinquent refly factor) for all associated FAC(A) qualification events (per paragraph 500.1.b), constitutes loss of the FAC(A) qualification.

(10) Aircrew who have lost the FAC(A) qualification due to failure to meet JFAC(A) MOA Proficiency or Currency requirements shall regain the FAC(A) qualification by successfully completing events as delineated in the appropriate T&R syllabus under the supervision of a qualified FAC(A). At a minimum, such aircrew must complete the number and category (appropriate night, control type, ordnance, etc.) of controls the individual failed to accomplish during the appropriate Currency or Proficiency period (Currency - 2 controls in 90 days. Proficiency - 6 controls in a six month period; 4 of these 6 controls must be Type I, 1 control must be at night, and at least 1 must control an asset that expends ordnance).

(11) Aircrew who have lost the FAC(A) qualification due to exceeding the refly interval in all associated qualification events, or who have been FAC(A) unqualified for 18 consecutive months per the JFAC(A) MOA, shall regain qualification by completing the Refresher FAC(A) syllabus under the supervision of a FAC(A)I and conduct a minimum of 6 controls (4 of these 6 controls must be Type I, 1 control must be at night, and at least 1 must control an asset that expends ordnance).

JFAC(A) MOA requirements				
Interval	Total Controls	Type 1	Night	Ordnance
90 days	2	*	*	*
180 days	6	4	1	1
* No specified requirements in these areas for this interval				

(12) The intent of the T&R refly intervals is to meet the JFAC(A) MOA minimum requirements for currency/proficiency controls:

(13) Escort aircraft that are not flown by a FAC(A)I conducting instruction during a FAC(A) workup will log a FAC(A)-495 (FAC(A) Escort) code. Escort aircraft that are flown by a FAC(A)I conducting instruction during a FAC(A)/FAC(A)I workup will log the appropriate FAC(A) code and log the FAC(A) controls. FA-18A/C FAC(A) flights should fly as a section, while the escort for an FA-18A/C FAC(A) shall be 200 level complete. Escort aircraft will not fulfill the external support requirement of a FW CAS element for any FAC(A) qualification workup sortie.

c. Ground/Academic Training. Refer to MAWTS-1 Course Catalog.

d. Flight and Simulator Event Training. (16 Events, 20.2 hours).

SFAC(A)-480      1.0      WTT S

Goal. Type 1/2/3 FAC(A) Control procedures.

Requirement. Conduct Type 1/2/3 FAC(A) Controls. Emphasize C<sup>3</sup> Integration, Target Area Flow/Timing, Sensor Management, Switchology and Crew Resource Management. Two Type 1, two Type 2 and two Type 3 controls required for completion. FAC(A)I at the simulator console must simulate C<sup>3</sup> agencies, TACP and CAS aircraft.

Performance Standards

Correctly uses aircraft systems for target coordinate and 9-line generation.  
Ensures proper coordination and approval for CAS attacks.  
Positions FAC(A) aircraft appropriately to provide marking and control while executing FAC(A) profiles appropriate for threat/friendly locations/systems and environment.  
Executes FAC(A) Type 1/2/3 control TTPs IAW JCAS using proper terminology.

Prerequisite. Academic requirements complete, Division Leader with FAC / FAC(A) experience or Mission Commander. CAS-303 and SCAR-321 complete.

SFAC(A)-481      1.0      WTT S

Goal. Adverse weather, High-Threat (restrictive) FAC(A) Control procedures.

Requirement. Conduct Type 1 High-threat FAC(A) Controls. Emphasize C<sup>3</sup> Integration, Target Area Flow/Integration/Timing, Sensor Management, Switchology and Crew Resource Management. Four Type 1 controls required for completion. SEAD CFF mission must be given for each TOT. FAC(A)I at the simulator console must simulate C<sup>3</sup> agencies, TACP, Indirect Fire assets and CAS aircraft. Simulated weather is overcast at 8,000 ft.

Performance Standards

Correctly uses aircraft systems for target coordinate and 9-line generation.  
Ensures proper coordination and approval for IDF and CAS attacks.  
Employs proper communications format with the firing unit.  
Positions FAC(A) aircraft appropriately to provide marking and control while executing FAC(A) profiles appropriate for threat/friendly locations/systems and environment.  
Executes FAC(A) Type 1/2/3 control TTPs IAW JCAS using proper terminology.

Prerequisite. SFAC(A)-480 complete.

FAC(A)-482      1.3      1 FA-18A/C and 1 Escort A

Goal. Introduce FAC(A) FW Type 1 and 2 control procedures with Laser/PGMs in a low (permissive) threat environment.

Requirement. Perform visual/sensor reconnaissance of three separate targets on a tactical range, generating target coordinates with aircraft systems. Plot targets on gridded

imagery/chart and prepare target briefs. Control two Type 1 and two Type 2 attacks by FW aircraft utilizing level and roll-in delivery profiles. Use appropriate CAS briefing and control procedures. Perform authentication procedures. Deliver or coordinate LASER mark on target and guide one LGW to impact. Provide BHA. Four controls required for completion. If a range that permits Type 2 control is not available, Type 2 control may be evaluated with simulated JDAM/LGB deliveries.

Performance Standards

Executes appropriate Search/Detection/ID profiles. Correctly uses aircraft systems for target coordinate and 9-line generation. Provides LASER mark using proper J-LASER terminology and successfully guides LGW to impact, if required. Executes FAC(A)/CAS attack profiles appropriate for threat/friendly locations/systems and environment. Executes FAC(A) Type 1/2 control TTPs IAW JCAS using proper terminology.

Prerequisite. SFAC(A)-481.

Ordinance. TPOD with working LASER, 2 GBU-10/12/16, 250 rnds of 20mm, 40 Chaff/20 Flare for ALE-39 equipped aircraft/60 Chaff/60 Flare for ALE-47 equipped aircraft.

Range Requirements. RSTD, JCAS, SST, EXP.

External Syllabus Support. One or two FW CAS elements with live, inert or captive PGMs or Laser Guided Weapons and a ground FAC. LSTs are desired to aid in Type 1 control.

FAC(A)-483

1.3

R 1 FA-18A/C and 1 Escort A

Goal. Introduce FAC(A) FW Type 1/3 control procedures with GP ordnance in a low (permissive) threat environment.

Requirement. Perform visual/sensor reconnaissance of three separate targets on a tactical range, generating target coordinates with aircraft systems. Plot targets on gridded imagery/chart and prepare target briefs. Control three Type 1 and one Type 3 attacks by FW aircraft utilizing low threat tactics and GP Ordinance. Use appropriate CAS briefing and control procedures. Perform authentication procedures. Deliver or coordinate marking rounds on target, with a minimum of one mark via aircraft ordnance. Demonstrate the ability to provide timely, accurate corrections for CAS aircraft, and the ability to provide talk-ons. Provide BHA. Four controls required for completion.

Performance Standards

Executes appropriate Search/Detection/ID profiles. Correctly uses aircraft systems for target coordinate and 9-line generation. Provides accurate verbal description during talk-on attacks. When required, marks the target with a CEP less than 300 meters. Executes FAC(A)/CAS attack profiles appropriate for threat/friendlies/systems and environment.

Executes FAC(A) Type 1/3 control TTPs IAW JCAS using proper terminology.

Prerequisite. SFAC(A)-481.

Ordnance. RP rockets, 40 Chaff/20 Flare for ALE-39 equipped aircraft/60 Chaff/60 Flare for ALE-47 equipped aircraft. TPOD with working LASER desired.

Range Requirements. RSTD, JCAS, SST, EXP.

External Syllabus Support. One or two FW CAS elements with live or inert GP ordnance and a ground FAC.

FAC(A)-484

1.3 1 FA-18A/C and 1 Escort A (NS)

Goal. Introduce FAC(A) RW Type 1, 2, and 3 control procedures in a low (permissive) threat environment.

Requirement. Perform visual/sensor reconnaissance of three targets on a tactical range, generating target coordinates with aircraft systems. Plot targets on gridded imagery/chart and prepare target briefs. Control two Type 1, two Type 2 and one Type 3 attacks by attack helicopters. Use appropriate RW CAS briefing and control procedures. Perform authentication procedures. Deliver marking rounds/talk-on (rockets/guns/TOW) or provide laser designation (Hellfire). If conducted at night, use appropriate tactics for target illumination if necessary. For Type 1 (rockets/guns) controls emphasis should be on providing corrections, ensuring compliance with limit-of-advance and providing threat lookout for RW assets in the target area. For Type 1 (TOW) controls emphasis should be on providing a target sort and ensuring no friendlies in the SDZ. Two TOW/Hellfire controls are required for completion. One of the two controls must have the FAC(A) lasing for Hellfire employment. Simulated TOW and captive Hellfire are acceptable.

Performance Standards

Executes appropriate Search/Detection/ID profiles.

Correctly uses aircraft systems for target coordinate and 9-line generation.

Provides accurate verbal description during talk-on attacks.

If required, marks the target with a CEP less than 300 meters.

Provides LASER mark using proper J-LASER terminology.

Executes FAC(A)/CAS attack profiles appropriate for threat/friendlies/systems and environment.

Executes FAC(A) Type 1/2/3 control TTPs IAW JCAS using proper terminology.

Prerequisite. SFAC(A)-481.

Ordnance. TPOD with working LASER, 2 GBU-10/12/16 or 2 pods 2.75"/5.0" RP rockets, 40 Chaff/20 Flare for ALE-39 equipped aircraft/60 Chaff/60 Flare for ALE-47 equipped aircraft.

Range Requirements. RSTD, JCAS, SST, EXP.

External Syllabus Support. One or two RW CAS elements with live/captive Hellfire and a ground FAC.



FAC(A)-485

1.3

1 FA-18A/C and 1 Escort A (NS)

Goal. Introduce FAC(A) Type 1/2/3 control procedures in an urban environment.

Requirement. Perform visual/sensor reconnaissance of three separate targets in an urban environment, generating target coordinates with aircraft systems. Plot targets on Gridded Reference Graphic (GRG) and prepare target briefs. Control two Type 1 and two Type 2/3 attacks by aircraft. Use appropriate CAS briefing and control procedures. Deliver or coordinate marks as required. Demonstrate the ability to provide timely, accurate corrections for CAS aircraft, and the ability to provide GRG-based talk-ons. Integrate fires with ground FAC via datalink from TPOD to remote station, if so equipped. Four controls required for completion.

Performance Standards

Executes appropriate Search/Detection/ID profiles.  
Correctly uses aircraft systems for target coordinate, 9-line and BHA generation.  
Provides accurate verbal description during GRG talk-on attacks.  
Executes FAC(A)/CAS attack profiles appropriate for threat/friendly locations/systems and environment.  
Executes FAC(A) Type 1/2/3 control TTPs IAW JCAS using proper terminology.

Prerequisite. SFAC(A)-481.

Ordinance. TPOD with working LASER and ISR Datalink, 1 AGM-65E (captive or live), 1 GBU-10/12/16, 250 rnds of 20mm, 40 Chaff/20 Flare for ALE-39 equipped aircraft/60 Chaff/60 Flare for ALE-47 equipped aircraft.

Range Requirements. JCAS, SST, EXP, URBN WPNS.

External Syllabus Support. One or more FW or RW CAS elements, and a ground FAC. Ground FAC/JTAC should have capability to receive TPOD video via datalink.

FAC(A)-486

1.3

1 FA-18A/C and 1 Escort A (NS)

Goal. Introduce mortar/artillery airspot.

Requirement. Perform visual/sensor reconnaissance on three tactical targets, generating target coordinates with aircraft systems. Plot targets on gridded imagery/chart and prepare a call-for-fire brief. Emphasize accurate call-for-fire communications and adjustment procedures. One LASER adjust fire, one immediate suppression, one SEAD mission, and one high threat SEAD mission. Emphasis on high-threat airspot is FAC(A) positioning to provide redundant mark and accurate corrections for IDFS with simulated weather of overcast at 8,000 ft MSL. Both SEAD missions must include marking and suppression targets.

Performance Standards

Executes appropriate Search/Detection/ID profiles.

Correctly uses aircraft systems for target coordinate and 9-line generation.  
Employs proper communications format with the firing unit.  
Provides timely and accurate corrections to the firing unit.  
Completes an immediate suppression CFF within 60 seconds of receiving the mission from the FAC/FO.

Prerequisite. SFAC(A)-481.

Ordnance. TPOD with working LASER, 40 Chaff/20 Flare for ALE-39 equipped aircraft/60 Chaff/60 Flare for ALE-47 equipped aircraft.

Range Requirements. JCAS, SST, EXP.

External Syllabus Support. Indirect Fire Support (IDFS) asset (mortars or artillery) and a ground FAC or FO. IDFS asset requires a minimum of 10 HE rds, 2 WP rds, and 8 Illum rds.

FAC(A)-487

1.3 R 1 FA-18A/C and 1 Escort A NS

Goal. Introduce FAC(A) Night Systems procedures in a low (permissive) threat environment.

Requirement. Perform visual/sensor reconnaissance of three separate targets on a tactical range, generating target coordinates with aircraft systems. Plot targets on gridded imagery/chart and prepare target briefs. Control two Type 1 and two Type 2 attacks by FW aircraft. Use appropriate CAS briefing and control procedures. Perform authentication procedures. Deliver or coordinate marking rounds or IR/LASER mark on target. At least one Type 1 control must use an IR pointer, if so equipped. At least one Type 1 control must be supported by air-delivered covert illumination (LUU-19). Demonstrate the ability to provide timely, accurate corrections for CAS aircraft. Provide BHA. Four controls required for completion. If a range that permits Type 2 control is not available, Type 2 control may be evaluated with simulated JDAM/LGB deliveries. If LUU-19s are not available, LUU-2s/Illum rockets may be substituted.

Performance Standards

Executes appropriate Search/Detection/ID profiles.  
Correctly uses aircraft systems for target coordinate and 9-line generation.  
Provides IR/LASER mark using proper terminology. Executes FAC(A)/CAS attack profiles appropriate for threat/friendly locations/systems and environment.  
Executes FAC(A) Type 1/2 control TTPs IAW JCAS using proper terminology.

Prerequisite. SFAC(A)-481.

Ordnance. TPOD with working LASER, 2 GBU-10/12/16 or 2 pods 2.75"/5.0" RP rockets, 4 LUU-19/LUU-2 or 1 pod 2.75" Illum rockets, 40 Chaff/20 Flare for ALE-39 equipped aircraft/60 Chaff/60 Flare for ALE-47 equipped aircraft.

Range Requirements. JCAS, SST, EXP.

External Syllabus Support. One or two FW CAS elements and a ground FAC.

FAC(A)-488

1.3

R 1 FA-18A/C and 1 Escort A

Goal. Introduce FAC(A) two-element integration procedures in a day, medium (restrictive) threat environment.

Requirement. Perform visual/sensor reconnaissance of three separate targets on a tactical range, generating target coordinates with aircraft systems. Plot targets on gridded imagery/chart and prepare target briefs. Control four Type 1 attacks by FW aircraft utilizing medium threat tactics. A minimum of two CAS profiles must be pop-up attacks. Emphasis during these pop-up attacks is on FAC(A) positioning for redundant marking and Type 1 control. Deliver or coordinate marks on target. Demonstrate the ability to provide timely, accurate corrections for CAS aircraft. Provide BHA. Four controls required for completion.

Performance Standards

Executes appropriate Search/Detection/ID profiles.

Correctly uses aircraft systems for target coordinate and 9-line generation.

Ensures proper coordination and approval for IDF, rotary wing and fixed wing attacks.

Executes FAC(A)/CAS attack profiles appropriate for threat/friendly locations/systems and environment.

Executes FAC(A) Type 1/2/3 control TTPs IAW JCAS using proper terminology.

Prerequisite. FAC(A)-482-487 complete.

Ordinance. 2 GBU-10/12/16 or 2 pods 2.75"/5.0" RP rockets, 40 Chaff/20 Flare for ALE-39 equipped aircraft/60 Chaff/60 Flare for ALE-47 equipped aircraft. TPOD with working LASER desired.

Range Requirements. JCAS, EXP.

External Syllabus Support. One FW CAS element, One additional Fire support asset (RW CAS/UAV CAS/IDFS) and a ground FAC. If IDFS is to be used 10 HE rds, 4 WP rds for marking or suppression required.

FAC(A)-489

1.3

R 1 FA-18A/C and 1 Escort A NS

Goal. Introduce FAC(A) two-element integration procedures in a night, medium (restrictive) threat environment.

Requirement. Perform visual/sensor reconnaissance of three separate targets on a tactical range, generating target coordinates with aircraft systems. Plot targets on gridded imagery/chart and prepare target briefs. Control two Type 1 and two Type 2 attacks by FW aircraft utilizing medium threat tactics. Deliver or coordinate marks on target. Demonstrate the ability to provide timely, accurate corrections for CAS aircraft. Provide BHA. Four controls required for completion. If a range that permits Type 2 control is not

available, Type 2 control may be evaluated with simulated JDAM/LGB deliveries.

Performance Standards

Executes appropriate Search/Detection/ID profiles.

Correctly uses aircraft systems for target coordinate and 9-line generation.

Ensures proper coordination and approval for IDF, rotary wing and fixed wing attacks.

Executes FAC(A)/CAS attack profiles appropriate for threat/friendly locations/systems and environment.

Executes FAC(A) Type 1/2/3 control TTPs IAW JCAS using proper terminology.

Prerequisite. FAC(A)-488.

Ordnance. TPOD with working LASER, 2 GBU-10/12/16 or 2 pods 2.75"/5.0" RP rockets, 40 Chaff/20 Flare for ALE-39 equipped aircraft/60 Chaff/60 Flare for ALE-47 equipped aircraft.

Range Requirements. JCAS, EXP.

External Syllabus Support. One FW CAS element, One additional Fire support asset (RW CAS/UAV CAS/IDFS) and a ground FAC. If IDFS is to be used 10 HE rds, 4 WP rds for marking or suppression required.

FAC(A)-490

1.3

R 1 FA-18A/C and 1 Escort A (NS)

Goal. Practice FAC(A) multi-element and supporting arms integration.

Requirement. Perform visual/sensor reconnaissance, generating target coordinates with aircraft systems. Plot targets on gridded imagery/chart and prepare target briefs. Plan and execute at least one integrated attack utilizing 3 or more elements. For FW/RW/UAV integration, emphasis is on conducting a sectorized simultaneous or combined sequential attack. For CAS/IDFS integration, time, altitude or lateral de-confliction can be used. This evaluation sortie should be flown in a MAGTF level exercise if possible.

Performance Standards

Executes appropriate Search/Detection/ID profiles.

Correctly uses aircraft systems for target coordinate and 9-line generation.

Ensures proper coordination and approval for IDF and CAS attacks.

Executes FAC(A)/CAS attack profiles appropriate for threat/friendly locations/systems and environment.

Executes FAC(A) Type 1/2/3 control TTPs IAW JCAS using proper terminology.

Prerequisite. FAC(A)-489.

Ordnance. TPOD with working LASER, 2 GBU-10/12/16 or 2 pods 2.75"/5.0" RP rockets, 40 Chaff/20 Flare for ALE-39 equipped aircraft/60 Chaff/60 Flare for ALE-47 equipped aircraft.

Range Requirements. JCAS, EXP.

External Syllabus Support. Minimum of 3 Fire Support assets (FW CAS/RW CAS/UAV CAS/IDFS) and a ground FAC. IDFS asset requires 10 HE rds, 4 WP rds.

FAC(A)-491

1.3

1 FA-18A/C/D and 1 Escort A (NS)  
REFRESHER FA-18D ONLY

Goal. Introduce FAC(A) adverse weather procedures in an elevated-threat (restrictive) environment.

Requirement. Perform visual/sensor reconnaissance of three separate targets on a tactical range, generating target coordinates with aircraft systems. Plot targets on gridded imagery/chart and prepare target briefs. Control two Type 1 pop-up attacks and two Type 2 standoff attacks by FW CAS aircraft. Deliver or coordinate marking/suppression rounds on target. For IDFS integration, emphasis is on altitude or lateral de-confliction of fires effects using standard SEAD templates. Demonstrate the ability to provide timely, accurate corrections for CAS aircraft. Provide BHA. Four controls required for completion. If a range that permits Type 2 control is not available, Type 2 control may be evaluated with simulated JDAM/LGB deliveries. Simulated weather is overcast at 8,000 ft. This flight may be flown at night once it has been successfully completed during the daytime.

Performance Standards

Executes appropriate Search/Detection/ID profiles.  
If required, marks the target with a CEP less than 300 meters.  
Ensures proper coordination and approval for IDF and fixed wing attacks.  
Executes FAC(A)/CAS attack profiles appropriate for threat/friendlies/systems and environment.  
Executes FAC(A) Type 1/2 control TTPs IAW JCAS using proper terminology.

Prerequisite. FAC(A) Qual, FAC(A)-390 (D) or -490 (A/C) complete.

Ordinance. 2 pods 2.75"/5.0" RP rockets or 4 Mk-82/83, 40 Chaff/20 Flare for ALE-39 equipped aircraft/60 Chaff/60 Flare for ALE-47 equipped aircraft. TPOD with working LASER desired.

Range Requirements. MOA, JCAS, EXP.

External Syllabus Support. One or two FW CAS elements, one IDFS asset and a ground FAC. IDFS asset requires 10 HE rds, 4 WP rds.

FAC(A)-492

1.3

1 FA-18A/C/D and 1 Escort A

Goal. Introduce UAV/UCAV Integration.

Requirement. Perform visual/sensor reconnaissance on three tactical targets, generating target coordinates with aircraft systems. Receive one laser spot/target handoff from a UAV/UCAV. Plot targets on gridded imagery/chart and prepare an attack brief. Control two Type 2 and two Type 3 attacks by UAV/UCAV aircraft. Use appropriate CAS briefing and control

procedures. Perform authentication procedures. Deliver or coordinate LASER mark on target and guide one LGW to impact. Provide BHA and coordinate with UAV/UCAV to provide BHA. Four controls required for completion. If a range that permits Type 2 control is not available, Type 2 control may be evaluated with simulated LGW deliveries.

Performance Standards

Executes appropriate Search/Detection/ID profiles. Correctly uses aircraft systems for target coordinate and 9-line generation. Provides LASER mark using proper J-LASER terminology. Executes FAC(A)/CAS attack profiles appropriate for threat/friendly locations/systems and environment. Executes FAC(A) Type 2/3 control TTPs IAW JCAS using proper terminology.

Prerequisite. SFAC(A)-381(FA-18D) or 490 complete(FA-18 A/C).

Ordnance. TPOD with working LASER, 40 Chaff/20 Flare for ALE-39 equipped aircraft/60 Chaff/60 Flare for ALE-47 equipped aircraft.

Range Requirements. MOA, JCAS, EXP.

External Syllabus Support. UAV/UCAV asset with captive LGWs and a ground FAC or FO.

FAC(A)-493

1.3 1 FA-18A/C/D and 1 Escort A

Goal. Introduce Naval Surface Fire Support airspot TTPs.

Requirement. Perform visual/sensor reconnaissance on three tactical targets, generating target coordinates with aircraft systems. Plot targets on gridded imagery/chart and prepare a call-for-fire brief. Emphasize accurate call-for-fire communications and adjustment procedures. One adjust fire (LASER if feasible), and two mark and SEAD missions.

Performance Standards

Executes appropriate Search/Detection/ID profiles. Employs proper communications format with the firing unit. Provides timely and accurate corrections to the firing unit. Requires four rounds or less to achieve a bracket sufficient for a Fire For Effect (FFE).

Prerequisite. FAC(A)-490 for FA-18 A/C. Academic complete for FA-18D.

Ordnance. TPOD with working LASER, 40 Chaff/20 Flare for ALE-39 equipped aircraft/60 Chaff/60 Flare for ALE-47 equipped aircraft.

Range Requirements. MOA, JCAS, EXP.

External Syllabus Support. Naval Surface Fire Support asset and a ground FAC or FO or NGLO. NSFS asset requires a minimum of 10 HE rds, 2 WP rds, and 8 Illum rds.

FAC(A)-494

1.3

1 FA-18A/C/D and 1 Escort A

Goal. Introduce FAC(A) AC-130 Call For Fire procedures.

Requirement. Perform visual/sensor reconnaissance on three tactical targets, generating target coordinates with aircraft systems. Plot targets on gridded imagery/chart and prepare a call-for-fire brief. Emphasize accurate call-for-fire communications and adjustment procedures. Three missions required for completion.

Performance Standards

Executes appropriate Search/Detection/ID profiles.  
Correctly uses aircraft systems for target coordinate and call-for-fire brief generation.  
Provides accurate verbal description during talk-on attacks.  
If required, marks the target with a CEP less than 300 meters.  
Employs proper communications format with the AC-130.

Prerequisite. FAC(A)-490 for FA-18 A/C. Academic complete for FA-18D.

Ordnance. TPOD with working LASER, 40 Chaff/20 Flare for ALE-39 equipped aircraft/60 Chaff/60 Flare for ALE-47 equipped aircraft.

Range Requirements. MOA, JCAS, EXP.

External Syllabus Support. One AC-130 and a ground FAC.

FAC(A)-495

1.3

1 FA-18A/C/D A (NS)

Goal. Introduce escort procedures for FAC(A) wingman.

Requirement. Perform wingman duties during a FAC(A) mission. Provide mutual support, threat lookout, and duties assigned by the FAC(A) aircraft. Emphasis on communications relay and backup marks.

Performance Standards

Maintains mutual support and threat lookout throughout mission.  
Maintains situational awareness to rapidly assist FAC(A) with backup marks and alternate radio communications.

Prerequisite. 200 level complete.

Ordnance. TPOD with working LASER, 1 AGM-65E (captive or live), 1 GBU-10/12/16 or 2 pods 2.75"/5.0"rockets, 40 Chaff/20 Flare for ALE-39 equipped aircraft/60 Chaff/60 Flare for ALE-47 equipped aircraft.

Range Requirements. MOA, JCAS, EXP.

External Syllabus Support. 2+ CAS aircraft. Indirect fire and C3 agencies preferred.

9. Tactical Aerial Reconnaissance (TAR)

a. Purpose. Develop proficiency at multi-sensor imagery reconnaissance with the Advanced Tactical Airborne Reconnaissance System (ATARS).

b. General

(1) Emphasize integrated mission planning, search profiles, sensor employment, and information flow through the C3 system. Both pre-planned collection and targets of opportunity techniques will be executed.

(2) After completion of this phase, aircrew may be designated TAR qualified by their commanding officer.

(3) ATARS aircraft must be configured with two operable Digital Tape Recorders, ATARS sensors, and APG-73 RUG 2. TAR-282 also requires an AN/ARQ-56 Data Link Pod and coordination with a Marine Tactical Exploitation Group (TEG) or similarly equipped ground imagery exploitation system.

(4) Aircraft should also be configured with operable CVRS, ALQ-126B, ALR-67, chaff, flares, KY-58, and CATM-9 when possible.

c. Academic Training. Refer to MAWTS-1 Course Catalog.

d. Flight and Simulator Event Training. (3 Events, 3.9 hours).

TAR-496

1.3

1 FA-18D A

Goal. Introduce Electro-optical (EO) and Infrared (IR) imagery collection using the Advanced Tactical Airborne Reconnaissance System (ATARS). Emphasize mission planning, target acquisition, and employment of EO and IR sensors while executing a day AR mission.

Requirement. Conduct high and low altitude AR as a section to detect and collect EO/IR imagery of both pre-planned targets and targets of opportunity.

Performance Standards

Conduct AR of named areas of interest and detect targets.

Collect preplanned imagery using all EO and IR sensors.

A minimum of one vertical, one high oblique, and one low oblique EO image will be collected.

Complementary IR imagery will be collected simultaneously when applicable.

Collect imagery of targets of opportunity with all EO and IR sensors.

Execute target attacks and collect post-strike imagery for BDA.

Prerequisite. 200 Level complete.

Ordinance. 6 Mk-76, 40 Chaff/20 Flare for ALE-39 equipped aircraft/60 Chaff/60 Flare for ALE-47 equipped aircraft.

Range Requirements. RSTD, TGT, EXP.



TAR-497

1.3

R 1 FA-18D A (NS)

Goal. Introduce Synthetic Aperture Radar (SAR) imagery collection while employing ATARS. Emphasize mission planning, target acquisition, and employment of both SAR and the Infrared Line Scanner (IRLS) in a night AR mission.

Requirement. Conduct night AR as a section to locate targets and collect both SAR and IR imagery of pre-planned targets and targets of opportunity.

Performance Standards

Conduct AR of named areas of interest and detect targets.

Collect pre-planned imagery using both SAR and IRLS.

A minimum of two SAR strip maps and two SAR spot maps are required.

Complementary IR imagery will be collected of the same targets.

Collect imagery of targets of opportunity using both SAR and IRLS.

Perform target attacks and collect post-strike imagery for BDA.

Prerequisite. TAR-496.

Ordinance. 6 Mk-76, 10 40 Chaff/20 Flare for ALE-39 equipped aircraft/60 Chaff/60 Flare for ALE-47 equipped aircraft.

Range Requirements. RSTD, TGT, EXP.

TAR-498

1.3

1 FA-18D A (NS)

Goal. Introduce employment of the AN/ARQ-56 ATARS Datalink Pod. Emphasize mission planning, sensor employment, and datalink of time-critical imagery while executing a medium threat AI mission.

Requirement. Execute a medium threat AI mission, collect pre-planned targets and targets of opportunity, and datalink time-critical imagery to the TEG.

Performance Standards

Collect preplanned imagery enroute using EO, IR, and SAR sensors.

Collect pre-strike and post-strike imagery of assigned DMPIs.

Conduct imagery review inflight and datalink time-sensitive imagery to the TEG.

Prerequisite. TAR-497.

Ordinance. 6 Mk-76 or 2 LGTR, 40 Chaff/20 Flare for ALE-39 equipped aircraft/60 Chaff/60 Flare for ALE-47 equipped aircraft.

Range Requirements. RSTD, TGT, EXP, LSR.

External Syllabus Support. TEG or similarly equipped ground imagery exploitation system required.

140. 500 LEVEL INSTRUCTOR UNDER TRAINING (IUT) (FA-18A/C/D)

1. Instructor Under Training (IUT). IUT training shall be conducted in accordance with the MAWTS-1 Course Catalog.

2. Low Altitude Tactics Instructor (LATI)

a. Purpose. To certify an FA-18 Pilot as an instructor capable of safely conducting ground and airborne instruction of the FA-18 LAT flight syllabus.

b. General. Aircrew shall be LAT qualified and current prior to beginning this stage of training.

c. Ground/Academic Training. Refer to the MAWTS-1 Course Catalog.

d. Flight and Simulator Event Training. (4 Events, 4.9 hours).

<u>SLATI-510</u>	<u>1.0</u>	<u>E WTT/OFT S</u>
	<u>Requirement</u> .	Reference the MAWTS-1 Course Catalog for the LATI POI.

<u>LATI-511</u>	<u>1.3</u>	<u>E 2 FA-18A/C/D A</u>
	<u>Requirement</u> .	Reference the MAWTS-1 Course Catalog for the LATI POI.

<u>LATI-512</u>	<u>1.3</u>	<u>E 2 FA-18A/C/D A</u>
	<u>Requirement</u> .	Reference the MAWTS-1 Course Catalog for the LATI POI.

<u>LATI-513</u>	<u>1.3</u>	<u>E 2 FA-18A/C/D A</u>
	<u>Requirement</u> .	Reference the MAWTS-1 Course Catalog for the LATI POI.

3. Air Combat Tactics Instructor (ACTI)

a. Purpose. To certify FA-18 aircrew as instructors capable of safely conducting ground and airborne instruction of the FA-18 BFM and ACM flight syllabus.

b. General. Aircrew shall be ACM qualified. Pilots shall be a designated section lead and WSOs shall be of equivalent experience level.

c. Ground/Academic Training. Refer to the MAWTS-1 Course Catalog.

d. Flight and Simulator Event Training. (3 Events, 3.9 hours).

<u>ACTI-520</u>	<u>1.3</u>	<u>E 2 FA-18A/C/D A</u>
	<u>Requirement</u> .	Reference the MAWTS-1 Course Catalog for the ACTI POI.

<u>ACTI-521</u>	<u>1.3</u>	<u>E 2 FA-18A/C/D A</u>
	<u>Requirement</u> .	Reference the MAWTS-1 Course Catalog for the ACTI POI.

ACTI-522            1.3                    E 2 FA-18A/C/D A

Requirement. Reference the MAWTS-1 Course Catalog for the ACTI POI.

4. Night System Instructor (NSI)

a. Purpose. To certify an FA-18 aircrew as an instructor capable of safely conducting ground and airborne instruction of the FA-18 night systems flight syllabus.

b. General. Reference the MAWTS-1 Course Catalog for the NSI POI.

c. Ground/Academic Training. Refer to the MAWTS-1 Course Catalog.

d. Flight and Simulator Event Training. (4 Events, 4.9 hours).

SNSI-530            1.0                    E WTT/OFT S

Requirement. Reference the MAWTS-1 Course Catalog for the NSI POI.

NSI-531            1.3                    E 2 FA-18A/C/D A NS

Requirement. Reference the MAWTS-1 Course Catalog for the NSI POI.

NSI-532            1.3                    E 2 FA-18A/C/D vs 2 Adversaries A NS

Requirement. Reference the MAWTS-1 Course Catalog for the NSI POI.

NSI-533            1.3                    E 2 FA-18A/C/D A NS

Requirement. Reference the MAWTS-1 Course Catalog for the NSI POI.

5. Forward Air Controller (Airborne) Instructor [FAC(A)I]

a. Purpose. To certify FA-18 aircrew as a FAC(A)I capable of conducting ground and airborne instruction of the FAC(A) mission and capable of safely controlling CAS in close proximity to friendly troops. Emphasize demonstration of ability to coordinate simultaneous FW and RW CAS, artillery, or NSFS, while working for a TACP and operating with a MACCS.

b. General. Pilots shall be a designated division lead and WSOs shall be of equivalent experience level.

c. Ground/Academic Training. Refer to the MAWTS-1 Course Catalog.

d. Flight and Simulator Event Training. (3 Events, 3.9 hours).

FAC(A)I-540        1.3                    E 2 FA-18A/C/D A (NS)

Requirement. Reference the MAWTS-1 Course Catalog for the FAC(A)I POI.

FAC(A) I-541      1.3                      E 2 FA-18A/C/D A (NS)

Requirement. Reference the MAWTS-1 Course Catalog for the FAC(A) I POI.

FAC(A) I-542      1.3                      E 2 FA-18A/C/D A NS

Requirement. Reference the MAWTS-1 Course Catalog for the FAC(A) I POI.

6. Tactical Air Coordinator (Airborne) Instructor [TAC(A)I]

a. Purpose. To certify an FA-18D aircrew as a TAC(A)I capable of conducting ground and airborne instruction of the TAC(A) mission. Emphasize ability to coordinate with the GCE, coordinate mission assignments with the DASC and TACPs, and airspace management.

b. General. Pilots shall be a designated division lead and WSOs shall be of equivalent experience level.

c. Ground/Academic Training. Refer to the MAWTS-1 Course Catalog.

d. Flight and Simulator Event Training. (1 Event, 1.3 hours).

TAC(A) I-550      1.3                      E 2 FA-18D A (NS)

Requirement. Reference the MAWTS-1 Course Catalog for the TAC(A) I POI.

150. 600 LEVEL REQUIRED EVENTS (RQD)/QUALIFICATIONS (QUAL)/DESIGNATIONS (DESG) (FA-18A/C/D)

1. Required Events (RQD)

a. Purpose. To track training codes associated with required evaluations and flight leadership proficiency.

b. General

(1) E-coded sorties are evaluation sorties. CRP is not awarded for these 600-level sorties. However, CRP credit may be obtained by logging the appropriate training code(s) in the 200-400 level syllabus.

(2) Flight Leadership proficiency tracking codes (RQD-505-507) shall be logged in conjunction with the appropriate 200-400 level event training code every time an aircrew flies an event as a designated section lead, division lead, or mission commander.

c. Ground/Academic Training. None.

d. Flight and Simulator Event Training. (7 Events, 8.8 hours).

RQD-600              1.3                      E 1+ FA-18A/C/D WTT/OFT A/S

Goal. Demonstrate proficiency flying an annual NATOPS check.

Requirement. Successfully conduct the check IAW applicable directives.

Performance Standards  
IAW the FA-18 NATOPS.

Prerequisite. See current version of OPNAV 3710.

RQD-601                    1.3                    E 1+ FA-18A/C/D WTT/OFT A/S (NS)

Goal. Demonstrate proficiency flying an annual instrument check.

Requirement. Successfully conduct the evaluation IAW applicable directives.

Performance Standards  
IAW NATOPS and OPNAV 3710.

RQD-603                    1.3                    1+ FA-18A/C/D A (NS)

Goal. Track proficiency in day or night strategic aerial refueling.

Requirement. Two day contacts or two night contacts required for completion.

External Syllabus Support. One KC-135 or KC-10 tanker.

SRQD-604                    1.0                    R,E WTT/OFT S

Goal. Introduce and demonstrate techniques and procedures associated with the Functional Check Flight (FCF).

Requirement. Simulator shall be used under the supervision of a designated FCF pilot. All portions of the FCF checklist shall be reviewed during the simulator period.

RQD-605                    1.3                    R 2 FA-18A/C/D A

Goal. Track section lead proficiency.

Requirement. To maintain proficiency as a section lead a pilot shall brief, lead, and debrief the designated event in accordance with the mission performance standards for that event.

Prerequisite. Designated section leader.

RQD-606                    1.3                    R 4 FA-18A/C/D A

Goal. Track division lead proficiency.

Requirement. To maintain proficiency as a division lead a pilot shall brief, lead, and debrief the designated event in accordance with the mission performance standards for that event.

Prerequisite. Designated division leader.

RQD-607                    1.3                    R 6+ FA-18A/C/D A

Goal. Track mission commander proficiency.

Requirement. To maintain proficiency as a mission commander aircrew shall brief, lead, and debrief the designated event in accordance with the mission performance standards for that event.

Prerequisite. Designated mission commander.

## 2. Qualification Events (QUAL)

a. Purpose. To track training codes associated with qualifications.

b. General. E-coded sorties are evaluation sorties. E-coded sorties in the 600-level phase may be logged in conjunction with any sortie that completes its stage. For example, RQD-610 may be flown in conjunction with LAT-282. CRP is not awarded for these 600-level sorties. However, CRP credit may be obtained by logging the appropriate training code(s) in the 200-400 level syllabus. Once the flight to attain the qualification is complete, a letter from the squadron commanding officer awarding the qualification shall be placed in the NATOPS jacket and APR.

c. Ground/Academic Training. Refer to the MAWTS-1 Course Catalog.

d. Flight and Simulator Event Training. (9 Events, 11.7 hours).

QUAL-610            1.3                    R 2 FA-18A/C/D A

Goal. Tracking code for LAT qualification.

Requirement. Completion of LAT-282 meets the requirements for the PUI to be LAT qualified. At the discretion of the squadron commanding officer a letter assigning the PUI as LAT qualified shall be placed in the NATOPS jacket.

Prerequisite. LAT-280-282.

QUAL-611            1.3                    R 1+ FA-18A/C/D A

Goal. Tracking code for day Carrier Qualification (CQ).

Requirement. Completion of ECQ-403 meets the requirements for the PUI to be day CQ. At the discretion of the squadron commanding officer a letter assigning the PUI as day CQ shall be placed in the NATOPS jacket.

Prerequisite. SECQ-400, ECQ-401,403.

QUAL-612            1.3                    R 1+ FA-18A/C/D A N

Goal. Tracking code for night CQ.

Requirement. Completion of night CQ IAW current Naval Instructions meet the requirements for the PUI to be night CQ. At the discretion of the squadron commanding officer a letter assigning the PUI as night CQ shall be placed in the NATOPS jacket.

Prerequisite. SECQ-400, ECQ-401-404.

<u>QUAL-613</u>	<u>1.3</u>	<u>4 FA-18A/C/D A</u>
	<u>Goal.</u> Tracking code for ACM qualification.	
	<u>Requirement.</u> Completion of AA-270 meets the requirements for the PUI to be ACM qualified. At the discretion of the squadron commanding officer a letter assigning the PUI as ACM qualified shall be placed in the NATOPS jacket.	
	<u>Prerequisite.</u> AA-260-270.	
<u>QUAL-614</u>	<u>1.3</u>	<u>2 FA-18A/C/D A</u>
	<u>Goal.</u> Tracking code for FAC(A) qualification.	
	<u>Requirement.</u> Completion of FAC(A)-390 (D) or -490 (A/C) meets the requirements for the PUI to be FAC(A) qualified. At the discretion of the squadron commanding officer a letter assigning the PUI as FAC(A) qualified shall be placed in the NATOPS jacket.	
	<u>Prerequisite.</u> FAC(A)-480-490 (A/C) or FAC(A)-380-390 (D).	
<u>QUAL-615</u>	<u>1.3</u>	<u>2 FA-18A/C/D A NS</u>
	<u>Goal.</u> Tracking code for NSQ HI qualification.	
	<u>Requirement.</u> Completion of NS-254 meets the requirements for the PUI to be NSQ HI. At the discretion of the squadron commanding officer a letter assigning the PUI as NSQ HI shall be placed in the NATOPS jacket.	
	<u>Prerequisite.</u> NS-250-254.	
<u>QUAL-616</u>	<u>1.3</u>	<u>2 FA-18A/C/D A NS</u>
	<u>Goal.</u> Tracking code for NSQ Low.	
	<u>Requirement.</u> Completion of NS-432 meets the requirements for the PUI to be NSQ Low. At the discretion of the squadron commanding officer a letter assigning the PUI as NSQ Low shall be placed in the NATOPS jacket.	
	<u>Prerequisite.</u> NSQ HI, NS-430-432.	
<u>QUAL-617</u>	<u>1.3</u>	<u>1 FA-18D A</u>
	<u>Goal.</u> Tracking code for TAC(A) qualification.	
	<u>Requirement.</u> Completion of TAC(A)-393 meets the requirements for the PUI to be TAC(A) qualified. At the discretion of the squadron commanding officer a letter assigning the PUI as TAC(A) qualified shall be placed in the NATOPS jacket.	
	<u>Prerequisite.</u> FAC(A) qualified, TAC(A)-392-393.	
<u>QUAL-618</u>	<u>LSO Qual.</u>	

QUAL-619            1.3                    2 FA-18A/C/D A

Goal. Demonstrate proficiency in the execution of FCF checklist.

Requirement. Shall be flown with a designated FCF pilot in a chase aircraft during day VMC conditions. Completion of the FCF checklist.

Performance Standards  
Completion of the applicable FCF checklist.

Prerequisite. RQD-604.

3. Section Lead Standardization and Designation (DESG)

a. Purpose. To prepare and evaluate the prospective section lead's ability to plan, brief and lead an event as a section lead.

b. General

(1) Prospective section leads shall conduct the following day and night workup sorties in order to develop the prospective section lead's flight leadership. All prospective section lead DESG events shall be evaluated by a designated division lead or higher. Three Section Lead events (2 air-to-surface flights and 1 air-to-surface simulator) shall be evaluated by a MAG Flight Lead Stan Evaluator. The MAG Commanding Officer shall designate senior flight leads as MAG Stan Evaluators once they have completed standardization training. If the squadron is deployed to a remote location or afloat the squadron commanding officer will request a waiver to the external evaluator requirement via the MAG commanding officer.

(2) The section lead evaluator will use the sortie requirement accomplishment criterion to determine whether the prospective flight lead completed the sortie. The prospective section lead will use the performance standards to debrief the flight. Completion of the DESG syllabus meets the requirements for designation as section leader. At the discretion of the squadron commanding officer, a letter designating the pilot as section leader shall be placed in the NATOPS jacket and APR. Re-designation will require successful completion of the evaluation event only, at the discretion of the commanding officer. Aircraft should be configured with operable VTR/CVRS, ALQ-126B, ALR-67, KY-58, TPOD, MIDS, CIT, DCS/VMF, and LDT when required.

(3) Prospective section leads shall be complete with all 200 and 300 level events, except FAC(A) and TAC(A) for FA-18D crews, prior to beginning the section lead syllabus (DESG-620-631). A WSO with commensurate experience as a Pilot undergoing section lead training shall complete the academics matrix and three events (2 air-to-surface flights and 1 air-to-surface simulator) evaluated by a MAG Flight Lead Stan Evaluator. If the squadron is deployed to a remote location or afloat the squadron commanding officer will request a waiver to the external evaluator requirement via the MAG commanding officer.

(4) The following matrix will be used to track academic and administrative training.



SELF PACED READINGS		DATE COMP
USMC ADMIN SOP		
USMC FA-18 TACSOP		
TG MAN, CH. 14: THREAT EW		
TG MAN, CH. 12: THT RADAR MISSILES		
TG MAN, CH. 13: THT IR MISSILES		
TG MAN, CH. 41: AA MSN PLANNING		
TG MAN, CH. 44, 45: FA-18 EMPLOYMENT		
TG MAN, CH. 10: ADVERSARY INST		
REQUIRED CHALK TALKS	DATE COMP	INSTRUCTOR
A/A TIMELINE CONSTRUCTION		
A/G TIMELINE CONSTRUCTION		
MISSION PLANNING SYSTEMS		
JDAM/JSOW MSN PLANNING		
SECTION AA TARGETING		
ATTP		
REQUIRED LECTURES	DATE COMP	INSTRUCTOR
FA-18 SACT		
FA-18 EW SUITE		
FA-18 TARGET ATTK PLAN		
FA-18 CAS 1/2		
TACAIR JMEMS		
FA-18 FIGHTER MISSIONS		
FA-18 MSN EMPLOY 1		
FA-18 MSN EMPLOY 2		
FA-18 MSN EMPLOY 3		
THREAT TACTICS		
THREAT AIRCRAFT		
FA-18 SELF ESCT TACTICS		
FA-18 HARM TAILORING		
FA-18 HARM PLANNING		
ADMINISTRATIVE FLIGHT REQ.	DATE COMP	INSTRUCTOR
LEAD OVERHEAD BREAK		
LEAD SECTION PAR		
LEAD SIM NORDO APPROACH		
LEAD SIM HUNG ORD APPROACH		
LEAD STRT IN FLT LD SEP		
LEAD OVERHEAD BREAK - NT		
LEAD PAR - NT		
LEAD VIS STR IN - NT		
SECTION LANDING		
INTERVAL TAKEOFF		
SECTION TAKEOFF		
SIMO GO		

HERD GO DASH 3		
CONDUCT ACMI DEBRIEF		
FLY AS DASH THREE IN A DIV		

c. Ground/Academic Training. Refer to the standardization matrix above.

d. Flight and Simulator Event Training. (12 Events, 15.0 hours).

DESG-620                      1.3                      E 2 FA-18A/C/D A

Goal. Conduct a 1v1 all-weather intercept sortie to local area training range. Target wingman is a new aircrew recently completed with the FRS and unfamiliar with SOP and local area procedures. Emphasis shall be placed on knowledge of NATOPS, USMC Admin SOP, local course rules, local SOP addendum, and admin flight procedures.

Requirement. Plan, brief, lead and debrief 1v1 intercepts as a section lead. Upon successful completion of this event, the IUT shall log both training codes for tracking purposes. With a minimum of 40 nm separation, conduct a minimum of three all weather intercepts from a medium altitude versus forward quarter capable bandits commencing at high, medium, and low altitude. Demonstrates comprehensive knowledge and understanding of NATOPS, Admin SOP, TACSOP, and local course rules. The prospective flight lead shall accomplish the following criterion:

Briefs IAW USMC Admin and TAC SOP.  
Complies with USMC Admin SOP and local course rules.  
Executes intercepts safely IAW OPNAV 3710 and training rules.  
Arrives at valid forward quarter or rear quarter weapons envelope.  
Accurately recalls and reconstructs engagements using white board debrief.  
Validates all shots.

Performance Standards

Adhere to USMC FA-18 Admin SOP.  
Maintains proper formation and visual mutual support to and from assigned working area.  
Demonstrates proficiency in basic radar mechanics IAW USMC TACSOP.  
Arrives at a valid rear quarter weapons envelope with 0 to +100 knots Vc.  
Takes valid shots.

Prerequisite. 200 and 300 level complete, except FAC(A) and TAC(A) for FA-18D.

Ordinance. CATM-9 and CATM-7/120. 40 Chaff/20 Flare for ALE-39 equipped aircraft/60 Chaff/60 Flare for ALE-47 equipped aircraft.

Range Requirements. MOA, MACH 1+, EXP.

External Syllabus Support. As required for ACM-242.

DESG-621

1.3

E 2 FA-18A/C/D A

Goal. Conduct a 1v1 high aspect BFM flight. Target wingman is ACM qualified and working towards proficiency in AA/AAW missions. Emphasis shall be placed on safety, training rules, and flight control and area management.

Requirement. Plan, brief, lead and debrief a high aspect BFM sortie as a section lead. Upon successful completion of this event, the IUT shall log both training codes for tracking purposes. One SSD, one roller, and two high aspect engagements are required for completion of the event. The prospective flight lead shall accomplish the following criterion:

Brief tac admin and combat checklist procedures, engagement set-up parameters IAW USMC TACSOP.  
Briefs energy management, assessment, game plans, and WEZ recognition in order to succeed in HABFM.  
Demonstrates directive control of section to manage fuel, airspace, and engagement set-ups.  
Maneuvers aircraft IAW the brief.  
Accurately recalls and reconstructs engagements.  
Draws valid learning points.  
Validates all shots.

Performance Standards

Deny opponent weapon employment opportunities.  
Achieve first weapons employment opportunity.  
Gain positional advantage.  
Employ follow-on weapons.  
Transition to offensive or defensive BFM.  
Separate or kill attacker.  
For FQMD detect via SRR, RWR and or visual lookout.  
Accurate ID.

Prerequisite. DESG-620

Ordinance. CATM-9 and CATM-7/120. 40 Chaff/20 Flare for ALE-39 equipped aircraft/60 Chaff/60 Flare for ALE-47 equipped aircraft.

Range Requirements. AA, EXP.

External Syllabus Support. As required for BFM-233.

DESG-622

1.3

E 2 FA-18A/C/D A

Goal. Conduct a section 2v1/2 ACM sortie. Target wingman is ACM qualified and working towards proficiency in AA/AAW missions. Emphasis shall be placed on safety, training rules, clear, concise, and correct communications, flight control and area management.

Requirement. Plan, brief, lead and debrief a 2v1/2 ACM sortie as a section lead. One defensive engagement by a single adversary from a visual set, and multiple entries from any aspect (by single adversary and section profiles) in a Tap-the-cap scenario are required for completion. The prospective flight lead shall accomplish the following criterion:

Brief tac admin and combat checklist procedures, engagement set-up parameters IAW USMC TACSOP.  
Briefs engaged/free fighter roles and responsibilities.  
Briefs short range radar mechanics and ID/ROE.  
Demonstrates directive control of section to manage fuel, airspace, and engagement set-ups.  
Maintains mutual support.  
Maneuvers aircraft IAW the brief.  
Uses clear, concise, and correct comm.  
IAW ALSA Comm brevity and the brief.  
Accurately recalls and reconstructs engagements.  
Draws valid learning points.  
Validates all shots.

Performance Standards

Detect via SRR/RWR and visual lookout.  
Accurate ID.  
Effective section engaged maneuvering.

Prerequisite. DESG-621.

Ordinance. CATM-9 and CATM-7/120. 40 Chaff/20 Flare for ALE-39 equipped aircraft/60 Chaff/60 Flare for ALE-47 equipped aircraft.

Range Requirements. AA, EXP, MACH 1+, TACS.

External Syllabus Support. 2 adversaries (dissimilar).

DESG-623

1.3 E 2 FA-18A/C/D A

Goal. Conduct a section DCA point defense mission versus an unknown number of forward quarter capable adversaries with PHID required. Target wingman is fully qualified, and is knowledgeable of the Admin SOP and TACSOP. Emphasize training rule and block adherence, commit criteria, reset criteria,

desired engagement zone, targeting/sorting, maneuvering targets, and clear, concise, and correct communications.

Requirement. Plan, brief, lead and debrief a 2vX DCA as a section lead. One defined vulnerability period required for completion. Fighter weapons control status is tight with PHID criteria set by prospective flight lead according to the theater of operation. Adversaries present a level 3 or 4 bandit simulation IAW the USMC FA-18 TACSOP. On at least one run, PID criteria will not be satisfied. The prospective flight lead shall accomplish the following criterion:

Briefs realistic scenario IAW theater of operations.  
Briefs all players, to include bandits, on safety, training rules, and mid-air collision avoidance considerations.  
Briefs DCA mission planning factors, to include DEZ, MEZ/FEZ integration, targeting/sorting, and ROE.  
Directively targets IAW the brief.  
Adheres to briefed air-air mission timeline IAW the briefed threat.  
Safely executes IAW the brief.  
Maintains briefed vulnerability period with 100% factor groups targeted by fighters or IADS.

Accurately recalls and reconstructs engagements, using inputs from wingman and bandits.  
Draws valid learning points.  
Validates all shots.

Performance Standards

Maintains mutual support.  
Executes proper radar mechanics.  
Targets as directed.  
Recognizes threat tactics.  
Takes valid shots.  
Timeline awareness.  
Tactical decision making IAW mission objectives.

Prerequisite. DESG-622.

Ordnance. CATM-9 and CATM-7/120. 40 Chaff/20 Flare for ALE-39 equipped aircraft/60 Chaff/60 Flare for ALE-47 equipped aircraft.

Range Requirements. AA, EXP, MACH 1+, TACS.

External Syllabus Support. As required for ACM-334.

DESG-624

1.3

E 2 FA-18A/C/D A

Goal. Conduct a ordnance delivery sortie on a raked range, utilizing high/medium angle delivery profiles. Target wingman is a new aircrew recently completed with the FRS, but is familiar with local course rules and Admin SOP. Emphasis should be on planning delivery profiles ("Z-diagrams"), ordnance delivery mechanics, and safe air-surface execution IAW USMC FA-18 TACSOP.

Requirement. Plan, brief, lead and debrief a section ordnance delivery sortie to a raked range as a section lead. Six high angle and six medium angle deliveries are required for completion of the event. Use of air-surface planning tools (WASP) are required to produce valid delivery profiles. The prospective flight lead shall accomplish the following criterion:

Plans, and briefs two delivery profiles with a min alt no lower than 3,000'.  
Briefs carriage and release, MRI, stick length, valid delivery and abort considerations for a notional live ordnance load in addition to actual loadout.  
Maintains briefed pattern de-confliction IAW range regulations, training rules, and environmental conditions.  
Maintains safety awareness of wingman's delivery parameters.  
Validates all deliveries.  
Debriefs all pattern and delivery safety concerns.

Performance Standards

Adheres to briefed delivery parameters and TACSOP valid delivery criteria.  
Adheres to tactical abort parameters, when applicable.  
Achieves a CEP within the TACSOP valid bomb accuracy parameters.

Prerequisite. DESG-620E

Ordnance. 12xMk-76, 40 Chaff/20 Flare for ALE-39 equipped aircraft/60 Chaff/60 Flare for ALE-47 equipped aircraft.

Range Requirements. RSTD, RKD RNG, LSR, WISS, LT INERT, EXP.

SDESG-625

1.0

WTT S

Goal. Demonstrate knowledge and proficiency in ordnance delivery of Mk-80 series GP bombs, fins, fuzes, and GBU-10/12/16 series LGBs, and cluster munitions. Emphasis will be placed on proper fin selection, fuzing, weaponeering, carriage and release restrictions, delivery profiles ("Z-diagrams"), and MRI/Stick length.

Requirement. Plan and brief a section live weapons training sortie to a tactical range. Adhere to USMC TACSOP, valid delivery profiles, min altitude and abort criteria. Four GP Bomb deliveries, four PGM/LGB deliveries, and four CBU deliveries are required for completion of the event. The prospective flight lead shall accomplish the following criterion:

Plans, and briefs delivery profiles with a min alt no lower than 3,000'. Discusses fuze/fin combinations for GP bombs, LGBs, and CBU/MK-20. Briefs carriage and release, MRI, stick length, valid delivery and abort considerations for simulated loadout. Demonstrates proficiency in weapons delivery. Demonstrates knowledge of all pertinent systems. Validates all deliveries. Debriefs all pattern and delivery safety concerns.

Performance Standards

Adhere to USMC FA-18 Admin SOP.

Adheres to briefed delivery parameters and TACSOP valid delivery criteria.

Adheres to tactical abort parameters, when applicable.

Achieves a CEP within the TACSOP valid bomb accuracy parameters.

Prerequisite. DESG-624.

SDESG-626

1.0

WTT/OFT S

Goal. Brief and lead a simulated section close air support (CAS) mission. Conduct day Type 1 and Type 2 CAS under FAC or FAC(A) control. Emphasize mission planning, aircraft system management, attack parameters, delivery modes, designation techniques, and information flow through the C3 system.

Requirement. Conduct day Type 1 and Type 2 CAS under FAC or FAC(A) control. Two deliveries using visual or laser mark, two deliveries using talk on, and two PGM deliveries required for completion of the event. Adheres to USMC TACSOP, valid deliveries, and min. alt/abort parameters. The prospective flight lead shall accomplish the following criterion:

Uses all available planning tools to brief weaponeering, carriage and release limitations, delivery profiles, and safe

release/escape profiles.  
Uses all available planning tools to brief friendly order of battle, expected threat location(s), laser-target line(s), gun-target line(s).  
Plans and briefs section attacks with frag avoidance IAW JCAS procedures.  
Using 1:50,000 chart, plots position of all friendly and neutral forces.  
Uses effective communication IAW JCAS procedures to establish effective two-way information flow between ground units and CAS section.  
Reacts to and directs section versus surface-air threats.  
Validates all deliveries.  
Debriefs section with emphasis on target acquisition, effects, timing, and adherence to JCAS procedures.

Performance Standards

Compliance with JCAS TTPs.  
Effect on target.  
Compliance with TAC abort parameters.  
Valid weapons release.  
TOT +/- 15 secs.

Prerequisite. SDESG-625.

DESG-627

1.3 E 2 FA-18A/C/D A (NS)

Goal. Conduct a section LGB/buddy lase/buddy bomb ordnance delivery sortie. Target wingman is a 200-level complete and familiar with Admin SOP and TACSOP. Emphasis should be on LGB planning, laser de-confliction, DMPI acquisition, and section target area tactics, to include buddy lase/buddy bomb backup techniques.

Requirement. Plan, brief, lead and debrief a section GBU target area tactics sortie as a section lead. Two runs of section self-lase, two runs buddy lase (wingman bombs off lead's TPOD), and two runs buddy bomb (lead drops off of wingman's TPOD) required for completion of the event. The prospective flight lead shall accomplish the following criterion:

Plans and briefs section LGB delivery profiles to include buddy lase tactic.  
Briefs considerations, capabilities, and limitations of FLIR/TPOD and laser spot de-confliction.  
Briefs air-ground timeline and target area tactics IAW USMC TACSOP.  
Directs coordinated section attacks versus an IR-significant point target.  
Acquires and designates briefed target.  
Validates all deliveries.  
Debriefs all pattern and delivery safety concerns.

Performance Standards

Adhere to USMC FA-18 Admin SOP.  
Able to acquire/designate target with sensor.  
Able to maintain proper geometry for target illumination until weapons impact ("buddy lase").

Achieves a CEP within the TACSOP valid bomb accuracy parameters.

Prerequisite. SDESG-626.

Ordinance. 2 GBU-10/12/16 or 2 LGTR, 40 Chaff/20 Flare for ALE-39 equipped aircraft/60 Chaff/60 Flare for ALE-47 equipped aircraft.

Range Requirements. RSTD, LSR, WISS, TGT, IR TGT, LT INERT. (HVY INERT, HE), EXP.

DESG-628

1.3 E 2 FA-18A/C/D A (NS)

Goal. Conduct a section Armed Reconnaissance of a target area with GP bombs and cluster munitions. Target wingman is 200-level complete and familiar with Admin SOP and TACSOP. Emphasis should be on reactive weaponeering, WASP planning, MRI and stick length considerations, min frag avoidance, min fuzing. Additional emphasis on search parameters and techniques, target area tactics, and delivery profiles.

Requirement. Plan, brief, lead and debrief a section Armed Reconnaissance mission in a designated area as a section lead. For completion, must conduct high altitude area search, a direct attack, a delayed attack, and a transition attack. Lead able to locate, plot, and destroy targets of opportunity. React appropriately to surface-air threats. The prospective flight lead shall accomplish the following criterion:

Uses all available planning tools to brief weaponeering, carriage and release limitations, delivery profiles, and safe release/escape profiles.  
Plans and briefs section attacks on targets of opportunity to include direct, delayed, and transition attacks.  
Maintains situational awareness of wingman and mutual support.  
Locates targets and plots within 6-digit accuracy.  
Directs coordinated section attacks.  
Reacts to and directs section versus surface-air threats.  
Validates all deliveries.  
Debriefs all pattern and delivery safety concerns.

Performance Standards

Able to conduct visual reconnaissance of assigned area and detect targets.  
Performs target attacks appropriate for scenario.  
Minimizes threat exposure and performs appropriate threat countertactics.  
Performs valid weapons deliveries IAW USMC TACSOP.

Prerequisite. DESG-627.

Ordinance. 2 Mk-82/83/84, 2 CBU-99/Mk-20, 40 Chaff/20 Flare for ALE-39 equipped aircraft/60 Chaff/60 Flare for ALE-47 equipped aircraft.

Range Requirements. RSTD, EW, LSR, HE, ICM, EXP, SST.

External Syllabus Support. EW emitters.



DESG-629

1.3

E 2 FA-18A/C/D A NS

Goal. Conduct a night Type 1/Type 2 close air support (CAS) mission in support of the GCE. Target wingman is 200-level complete and familiar with Admin SOP and TACSOP. Emphasis should be on reactive weaponeering, WASP planning, MRI and stick length considerations, min frag avoidance, min fuzing. Additional emphasis on CAS procedures, system management, and C3 information flow.

Requirement. Plan, brief, lead and debrief a section Type 1/Type 2 Close Air Support mission in a designated area as a section lead. For completion, must conduct two Type 1 and two Type 2 CAS deliveries with FAC or FAC(A) control. React appropriately to surface-air threats. The prospective flight lead shall accomplish the following criterion:

Uses all available planning tools to brief weaponeering, carriage and release limitations, delivery profiles, and safe release/escape profiles.

Uses all available planning tools to brief friendly order of battle, expected threat location(s), laser-target line(s), gun-target line(s).

Plans and briefs section attacks with frag avoidance IAW JCAS procedures.

Using 1:50,000 chart, plots position of all friendly and neutral forces.

Uses effective communication IAW JCAS procedures to establish effective two-way information flow between ground units and CAS section.

Reacts to and directs section versus surface-air threats.

Validates all deliveries.

Debriefs section with emphasis on target acquisition, effects, timing, and adherence to JCAS procedures.

Performance Standards

Compliance with JCAS TTPs.

Compliance with TAC abort parameters.

Valid delivery IAW USMC TACSOP.

Execution appropriate threat countertactics. TOT +/- 15 secs.

Prerequisite. DESG-628.

Ordinance. 4 MK-82/83/84 or 12 Mk-76, 500mm 20mm, 40 Chaff/20 Flare for ALE-39 equipped aircraft/60 Chaff/60 Flare for ALE-47 equipped aircraft. (HE or HVY Inert if available).

Range Requirements. RSTD, EW, LSR, RLSR, JCAS, LT INERT, EXP, (HE, HVY INERT).

External Syllabus Support. JTAC or FAC(A).

DESG-630

1.3

E 2 FA-18A/C/D 2 Adversaries A

Goal. Conduct a day low altitude Air Interdiction mission. Target wingman is 200-level complete and familiar with Admin SOP and TACSOP. Emphasis should be on strike route planning, WASP planning, target acquisition, and threat countertactics. Additional emphasis on terrain clearance tasks, fuel management, route timing, and C3 information flow.

Requirement. Plan, brief, lead and debrief a day low altitude strike against a target protected by IADS as a section lead. For completion, must successfully attack and achieve desired Pd. TOT should be within a two-minute notional SEAD window for strike route timing. Adversaries will simulate an IR-3 threat with a level 2 or level 3 mindset IAW USMC FA-18 SOP. The prospective flight lead shall accomplish the following criterion:

Use available planning tools to include PFPS, JMPS, charts, and imagery to designate targets and plan strike route. Brief low altitude strike tactics IAW USMC TACSOP. Execute low altitude ingress, attack, and egress IAW LAT ROC. Directively target air-air threats to the section. Adhere to air-air and air-surface timeline, makes appropriate tactical decisions. Accurately recalls and reconstructs mission with aid of wingman and bandits. Debriefs mission success/failure based on mission objectives.

Performance Standards

Recognizes and reacts appropriately to threats.  
Adheres to planned air-to-air timeline and tactics.  
Delivers weapons on planned DMPI.  
Adheres to TACSOP valid delivery parameters.  
Takes valid shots.

Prerequisite. DESG-624.

Ordnance. 4 MK-82/83/84 or 12 MK-76, CATM-9 and CATM-7/120, 40 Chaff/20 Flare for ALE-39 equipped aircraft/60 Chaff/60 Flare for ALE-47 equipped aircraft.

Range Requirements. MTR, RSTD, TACTS, EW, ACM, LSR, TGT, HVY INERT, (HE), EXP.

External Syllabus Support. 2 Adversaries. AIC/GCI. RTO.

DESG-631

1.3 R,E 2 FA-18A/C/D 2 Adversaries A NS

Goal. Conduct a night high altitude Air Interdiction mission. Target wingman is experienced and familiar with USMC Admin and TACSOP. Emphasis should be on strike route planning, WASP planning, target acquisition, and threat countertactics. Additional emphasis on night considerations, fuel management, route timing, and C3 information flow.

Requirement. Plan, brief, lead and debrief night high altitude strike against a target protected by IADS as a section lead. For completion, must successfully attack and achieve desired Pd. TOT should be within a two-minute notional SEAD window for strike route timing. Adversaries will simulate an SAR-1 threat with a level 2 mindset IAW USMC FA-18 SOP. The Commanding Officer or designated rep shall evaluate this event. Satisfactory completion of this event will qualify the prospective flight lead for designation by the commanding officer. The prospective flight lead shall accomplish the following criterion:

Use available planning tools to include PFPS, JMPS, charts, and imagery to designate targets and plan strike route. Brief night/NVD strike tactics IAW USMC TACSOP. Execute night section attack safely IAW NVD training rules. Directively target air-air threats to the section. Adhere to air-air and air-surface timeline, makes appropriate tactical decisions. Accurately recalls and reconstructs mission with aid of wingman and bandits. Debriefs mission success/failure based on mission objectives.

Performance Standards

Recognizes and reacts appropriately to surface to air threats. Delivers weapons on planned DMPI. Adheres to TACSOP valid delivery parameters. Adheres to TACSOP element de-confliction/lost sight game plans if applicable.

Prerequisite. DESG-620-630.

Ordinance. 2 GBU-10/12/16 or 2 LGTR, 40 Chaff/20 Flare for ALE-39 equipped aircraft/60 Chaff/60 Flare for ALE-47 equipped aircraft.

Range Requirements. RSTD, TACTS, EW (Hi Fi EW), ACM, LSR, TGT, IR TGT, LT INERT, (HVY INERT, HE), EXP.

External Syllabus Support. 2 Adversaries. AIC/GCI.

4. Division Lead Standardization and Designation (DESG)

a. Purpose. To prepare and evaluate the prospective division lead's ability to plan, brief and lead an event as a division lead.

b. General

(1) Prospective division leads shall conduct the following day and night workup sorties in order to develop the prospective division lead's flight leadership. All division lead DESG events shall be evaluated by a designated mission commander. One event in the Division Lead syllabus shall be flown with a MAG Flight Lead Stan Evaluator. The MAG Commanding Officer shall designate senior flight leads as MAG Stan Evaluators once they have completed standardization training. If the squadron is deployed to a remote location or afloat, the squadron commanding officer will request a waiver to the external evaluator requirement via the MAG commanding officer.

(2) The evaluator will use the sortie requirement accomplishment criterion to determine whether the prospective division lead completed the sortie. The prospective division lead will use the performance standards to debrief the flight. Completion of the DESG syllabus meets the requirements for designation as division leader. At the discretion of the squadron commanding officer, a letter designating the pilot as division leader shall be placed in the NATOPS jacket and APR. Re-designation will require successful completion of the evaluation event only, at the discretion of the commanding officer. Aircraft should be configured with operable VTR/CVRS, ALQ-126B, ALR-67, KY-58, TPOD, MIDS, CIT, DCS/VMF and LDT when required.

(3) Prospective division leads shall be a qualified section lead.

(4) The following matrix will be used to track academic and administrative training:

SELF PACED READINGS		DATE COMP
USMC ADMIN SOP		
USMC FA-18 TACSOP		
TG MAN, CH. 46: AG EMPLOYMENT		
TG MAN, CH. 16: THREAT IADS		
NSAWC JNL SPRING 1998 -BEATING THE IADS		
NSAWC JNL SUMMER 1999 -DESERT FOX BHA		
NSAWC JNL FALL 1999 -GRINDER APPLICATION		
REQUIRED LECTURES	DATE COMP	INSTRUCTOR
FA-18 SACT		
FA-18 AG EMPLOYMENT		
FA-18 SELF ESCT TACTICS		
REQUIRED CHALK TALKS	DATE COMP	INSTRUCTOR
DIV TGTING FOR OCA/DCA		
DIV TARGET AREA FLOW		
SEAD INTEGRATION CONSID		
ADMIN FLT LEADERSHIP REQ.	DATE COMP	INSTRUCTOR
LEAD DIV. RDR TRAIL		
LEAD OVERHEAD BREAK		
LEAD SIM NORDO APPROACH		
LEAD SIM HUNG ORD APP		
LEAD STRT IN FLT LD SEP		
LEAD OVERHEAD BREAK - NT		
LEAD VIS STR IN - NT		

c. Ground/Academic Training. Refer to the academic and administrative table above.

d. Flight and Simulator Event Training. (5 Events, 6.5 Hours).

DESG-640                      1.3                      E 4 FA-18A/C/D A

Goal. Conduct a day defensive counter air mission. Target wingmen are ACM qualified and familiar with the USMC TACSOP. Emphasis should be placed on DEZ planning and management, commit criteria, reset criteria and mechanics, targeting, PHID criteria, and weapons employment.

Requirement. Plan, brief, lead and debrief a division DCA mission against an unknown number of adversaries with SAR-2 or AR-1 missiles. One defined vulnerability period required for completion. Adversaries present a level 3 or 4 bandit simulation IAW the USMC FA-18 TACSOP. Fighter weapons control

status is tight with PHID criteria set by flight lead according to theater of operation. On one intercept, PHID criteria will not be satisfied until after planned weapons employment range. The prospective flight lead shall accomplish the following criterion:

Brief IAW the USMC FA-18 Admin SOP and TACSOP.  
Demonstrates directive control of division to manage fuel, airspace, and engagement set-ups.  
Display sound flight leadership and judgment.  
Accurately recalls and reconstructs engagements.  
Draws valid learning points.  
Valid shots.  
Tactical decision making IAW mission objectives.

Performance Standards

Maintains mutual support.  
Executes proper radar mechanics.  
Targets as directed.  
Recognizes threat tactics.  
Takes valid shots.  
Timeline awareness.  
Tactical decision making IAW mission objectives.

Prerequisite. DESG-631.

Ordnance. CATM9, CATM-7/120, TACTS POD, 40 Chaff/20 Flare for ALE-39 equipped aircraft/60 Chaff/60 Flare for ALE-47 equipped aircraft.

Range Requirements. AA, TACTS, EXP.

External Syllabus Support. Two or more adversaries, TACTS range.

DESG-641

1.3 E 4 FA-18A/C/D vs. 2+ DISS ADV A (NS)

Goal. Conduct a division OCA (Sweep) mission. Emphasize division intercept procedures, maintaining proper formation, targeting and sorting, valid weapons employment, and standardized communications.

Requirement. Plan, brief, lead and debrief a division OCA (Sweep) mission against an unknown number of bogies with SAR-1 missiles. Two intercepts required for completion. Adversaries present a level 3 or 4 bandit simulation IAW the USMC FA-18 TACSOP. Fighter weapons control status is tight with PHID criteria set by flight lead according to theater of operation. The prospective flight lead shall accomplish the following criterion:

Brief IAW the USMC FA-18 Admin SOP and TACSOP.  
Demonstrates directive control of division to manage fuel, airspace, and engagement set-ups.  
Display sound flight leadership and judgment.  
Accurately recalls and reconstructs engagements.  
Draws valid learning points.  
Valid shots.  
Tactical decision making IAW mission objectives.

Performance Standards

Maintains mutual support.  
Executes proper radar mechanics.  
Targets as directed.  
Recognizes threat tactics.  
Takes valid shots.  
Timeline awareness.  
Tactical decision making IAW mission objectives.

Prerequisite. DESG-640.

Ordnance. CATM9, CATM-7/120, TACTS POD, 40 Chaff/20 Flare for ALE-39 equipped aircraft/60 Chaff/60 Flare for ALE-47 equipped aircraft.

Range Requirements. AA, TACTS, EXP.

External Syllabus Support. Two or more adversaries, TACTS range.

DESG-642

1.3

E 4 FA-18A/C/D vs. 2+ DISS ADV A NS

Goal. Conduct a division AI mission against a target with integrated air defenses. Emphasis air-to-surface and air-to-air mission planning, tactical decision making, mutual support, and target acquisition/destruction.

Requirement. Plan, brief, lead and debrief a night AI mission to attack and destroy a surface target. Adversaries present a level 3 or 4 bandit simulation IAW the USMC FA-18 TACSOP. Fighter weapons control status is tight with PHID criteria set by flight lead according to theater of operation. Plan a strike route using mission planning systems. Use JMEMS to weaponeer a specific target. Use WASP to validate and develop delivery profiles. Execute ingress, ordnance delivery and egress tactics consistent with the threat. The prospective flight lead shall accomplish the following criterion:

Brief IAW the USMC FA-18 Admin SOP and TACSOP.  
Demonstrates directive control of division to manage fuel, airspace, and engagement set-ups.  
Display sound flight leadership and judgment.  
Accurately recalls and reconstructs engagements.  
Draws valid learning points.  
Valid shots.  
Tactical decision making IAW mission objectives.

Performance Standards

Recognizes and reacts appropriately to surface to air threats.  
Delivers weapons on planned DMPI.  
Adheres to TACSOP valid delivery parameters.  
Adheres to TACSOP element de-confliction/lost sight game plans if applicable.

Prerequisite. DESG-641.

Ordnance. 2 GBU-10/12/16 or 2 LGTRS, CATM9, CATM-7/120, TACTS POD, 40 Chaff/20 Flare for ALE-39 equipped aircraft/60 Chaff/60 Flare for ALE-47 equipped aircraft.

Range Requirements. AA. TACTS, AAR, MTR, EW, LSR, TGT.

External Syllabus Support. Two or more adversaries, TACTS range.

DESG-643

1.3 E 4 FA-18A/C/D A

Goal. Conduct day SCAR. Emphasize locating targets in accordance with the RAGM, notifying AR assets of target locations and current threat, and proper information flow through the C3 system.

Requirement. Plan, brief, lead and debrief a SCAR 320 coordinated attacks against targets of opportunity. Coordination of a successful attack by one element of AR required for completion. The prospective flight lead shall accomplish the following criterion:

Brief IAW the USMC FA-18 Admin SOP and TACSOP.  
Demonstrates directive control of division to manage fuel, airspace, and engagement set-ups.  
Display sound flight leadership and judgment.  
Effectively locates and passes target locations to AR assets.  
Prioritizes targets in accordance with target precedence list.  
Effectively coordinate(s) target attacks.  
Effectively passes target and threat information to AR assets and C3.  
Draws valid learning points.  
Tactical decision making IAW mission objectives.

Performance Standards

Effectively locates and passes target locations to AR assets.  
Prioritizes targets in accordance with target precedence list.  
Effectively coordinate(s) target attacks.  
Effectively passes target and threat information to AR assets and C3.

Prerequisite. DESG-631.

Ordinance. 2 pods of 2.75"/5.0" rockets, 2 Mk-82/83, 250 rnds of 20mm, 40 Chaff/20 Flare for ALE-39 equipped aircraft/60 Chaff/60 Flare for ALE-47 equipped aircraft.

Range Requirements. MOA, TGT, IR TGT, HE, COMPLEX, TGT-MOVE, SST.

External Syllabus Support. 1 section AR assets.

DESG-644

1.3 R,E 4 FA-18A/C/D vs. 2+ DISS ADV A (NS)

Goal. Conduct a division AI mission against a target with integrated air defenses. Emphasis air-to-surface and air-to-air mission planning, tactical decision making, mutual support, and target acquisition/destruction.

Requirement. Plan, brief, lead and debrief an AI-354 to attack and destroy a surface target. Adversaries present a level 3 or 4 bandit simulation IAW the USMC FA-18 TACSOP. Fighter weapons control status is tight with PHID criteria set by flight lead according to theater of operation. Use WASP to

validate and develop delivery profiles. Plan a strike route using mission planning systems. Use JMEMS to weaponize a specific target. Execute ingress, ordnance delivery and egress tactics consistent with the threat. The Commanding Officer or his designated representative will evaluate this flight. Satisfactory completion of this event will qualify the prospective flight lead for designation by the Commanding Officer. The prospective flight lead shall accomplish the following criterion:

Brief IAW the USMC FA-18 Admin SOP and TACSOP.  
Demonstrates directive control of division to manage fuel, airspace, and engagement set-ups.  
Display sound flight leadership and judgment.  
Accurately recalls and reconstructs engagements.  
Draws valid learning points.  
Valid shots.  
Tactical decision making IAW mission objectives.

Performance Standards

Recognizes and reacts appropriately to threats.  
Adheres to planned air-to-air timeline and tactics.  
Delivers weapons on planned DMPI.  
Adheres to TACSOP valid delivery parameters.  
Takes valid shots.

Prerequisite. DESG-640-643.

Ordnance. 2 GBU-31/32/38, CATM9, CATM-7/120, TACTS POD, 40 Chaff/20 Flare for ALE-39 equipped aircraft/60 Chaff/60 Flare for ALE-47 equipped aircraft.

Range Requirements. AA. TACTS, AAR, MTR, EW, LSR, TGT.

External Syllabus Support. Two or more adversaries, TACTS range.

5. Mission Commander Standardization and Designation (DESG)

a. Purpose. To prepare and evaluate the prospective mission commander's ability to plan, brief and lead an event as a mission commander.

b. General

(1) Prospective mission commanders shall conduct the following day and night workup sorties in order to develop the prospective mission commander's flight leadership. All mission commander DESG events shall be evaluated by a designated WTI, NSAWC airwing strike lead, or squadron commanding officer. One event in the Mission Commander syllabus shall be evaluated by a MAG Flight Lead Stan Evaluator. The MAG Commanding Officer shall designate senior flight leads as MAG Stan Evaluators once they have completed standardization training. If the squadron is deployed to a remote location or afloat, the squadron commanding officer shall request a waiver to the external evaluator requirement via the MAG commanding officer. Completion of the DESG syllabus meets the requirements for designation as a mission commander. At the discretion of the squadron commanding officer, a letter designating the aircrew as a mission commander shall be placed in the NATOPS jacket and APR. Re-designation will require successful completion of the evaluation event only, at the discretion of the commanding officer. Aircraft



should be configured with operable VTR/CVRS, ALQ-126B, ALR-67, KY-58, TPOD, CIT, MIDS, DCS/VMF, and LDT when required.

(2) Prospective mission commanders shall be a qualified division lead and LFE-470, LFE-471 complete.

(3) The following matrix will be used to track academic and administrative training:

SELF PACED READINGS	DATE COMP	INSTRUCTOR
USMC ADMIN SOP		
USMC FA-18 TACSOP		
MAWTS-1 STRIKE PLAN GUIDE		
NSAWC JNL SUMMER 1997 -BOSNIA UPDATE		
NSAWC JNL SPRING 1999 -KNOW WHEN TO SAY WHEN		
NSAWC JNL SUMMER 1999 -FA-18 LL DESERT FOX		
NSAWC JNL SPRING 2000 -KOSOVO EZ OPS		
REQUIRED CHALK TALKS	DATE COMP	INSTRUCTOR
STRIKE PLANNING		
FORCE CON/D IN D CONSID		
JSEAD INTEGRATION		
STRIKE MISSION BRIEFING		

c. Ground/Academic Training. Refer to the academic and administrative table above.

d. Flight and Simulator Event Training. (3 Events, 3.9 Hours).

DESG-650      1.3      E 4+ FA-18A/C/D and 4+ Blue Ftrs A (NS)

Goal. Conduct an Air Defense mission of defended assets for a specified vul period. Emphasis shall be placed on coordinating mission planning, asset integration, information flow, cap management, ROE, PHID, and overall mission accomplishment.

Requirement. Plan, brief, execute and debrief an Air Defense mission against an unknown number of adversaries. Incorporate AC2W, ground-based air defense, air-refueling, and multiple fighter elements in the mission planning to achieve a cohesive defense of the defended assets. Adversaries present a level 3 or 4 bandit simulation IAW the USMC FA-18 TACSOP. Fighter weapons control status is tight with ROE and PHID criteria set by the mission commander during mission planning according to theater of operation.

Performance Standards

Supervise mission planning IOT ensure a timely and tactically sound plan.  
Incorporate missile and fighter engagement zones as appropriate.  
Conduct the mass brief and the FA-18 fighter brief.  
Effectively act as CAP manager.  
Effectively and safely lead a division FA-18 element.  
Decision-making and communications directs and coordinates blue fighters and agencies to accomplish the mission.  
Manage fallouts, alibis, and exceptions.  
Conducts the mass debrief.  
Debriefs relevant learning points from all participants.  
Accurately assesses mission success or failure.  
Makes effective recommendations to improve overall mission performance.

Prerequisite. DESG-644 or commensurate experience for WSOs, LFE-470, LFE-471.

Ordinance. CATM-9, CATM-7/120, TACTS, 40 Chaff/20 Flare for ALE-39 equipped aircraft/60 Chaff/60 Flare for ALE-47 equipped aircraft.

Range Requirements. AA, TACTS, EXP, MACH 1+.

External Syllabus Support. AIC/GCI, 4+ adversaries. Tanker support preferred.

DESG-651

1.3

E 4+ FA-18A/C/D and 4+ Blue Ftrs A

Goal. Conduct a day Air Interdiction Large Force Exercise. Emphasis shall be placed on coordinating mission planning, airborne decision-making, asset management and integration, and control of multiple aircraft elements and agencies.

Requirement. Plan, brief, lead and debrief an Air Interdiction Large Force Exercise as a mission commander. Incorporate multiple blue air fighter, SEAD, EW, and strike elements. Lead the FA-18 strike element. Adversaries present a level 3 or 4 bandit simulation IAW the USMC FA-18 TACSOP.

Performance Standards

Supervise mission planning IOT ensure a timely and tactically sound plan under a constrained timeline.  
Conduct the mass brief and the FA-18 fighter brief.  
Effectively and safely lead and direct the strike package.  
Manage fallouts, alibis, and exceptions.  
Conducts the mass debrief.  
Draws out and briefs relevant learning points from all participants.  
Accurately assesses mission success or failure.  
Makes effective recommendations to improve overall mission performance.

Prerequisite. DESG-644, LFE-470, LFE-471 for pilots, commensurate experience for WSOs.

Ordnance. CATM-9, CATM-7/120, TACTS, 40 Chaff/20 Flare for ALE-39 equipped aircraft/60 Chaff/60 Flare for ALE-47 equipped aircraft. Ordnance for strikers as required by strike mission planning.

Range Requirements. AA, TACTS, EXP, EW.

External Syllabus Support. AIC/GCI, 4+ blue fighters, 4+ adversaries, 2 SEAD aircraft preferred, 1 electronic attack aircraft preferred, tanker support preferred.

DESG-652

1.3 R,E 4+ FA-18A/C/D and 4+ Blue Ftrs A NS

Goal. Conduct a night Air Interdiction Large Force Exercise. Emphasis shall be placed on coordinating mission planning, airborne decision-making, asset management and integration, and control of multiple aircraft elements and agencies.

Requirement. Plan, brief, lead and debrief an Air Interdiction Large Force Exercise as a mission commander. Incorporate multiple blue air fighter, SEAD, EW, and strike elements. Lead the FA-18 strike element. Adversaries present a level 3 or 4 bandit simulation IAW the USMC FA-18 TACSOP.

Performance Standards

Supervise mission planning IOT ensure a timely and tactically sound plan under a constrained timeline.

Conduct the mass brief and the FA-18 fighter brief.

Effectively and safely lead and direct the entire strike package.

Manage fallouts, alibis, and exceptions.

Conducts the mass debrief.

Debriefs relevant learning points from all participants.

Accurately assesses mission success or failure.

Makes effective recommendations to improve overall mission performance.

Prerequisite. DESG-650, DESG-651.

Ordnance. CATM-9, CATM-7/120, TACTS, TPOD, 40 Chaff/20 Flare for ALE-39 equipped aircraft/60 Chaff/60 Flare for ALE-47 equipped aircraft. Ordnance for strikers as required by strike mission planning.

Range Requirements. AA, EXP, TACTS, TGT, LGB, TGT-DISP.

External Syllabus Support. AIC/GCI, 4+ blue fighters, 4+ adversaries, 2 SEAD aircraft, 1 electronic attack aircraft preferred, tanker support preferred.

160. 700 LEVEL ORDNANCE TRACKING/TRAINING DEFICIENCY EVENTS (FA-18A/C/D)

1. Aerial Specific Weapons Delivery (ASWD)

a. Purpose. To track proficiency in air-to-air gunnery and air-to-air missile employment.

b. General

(1) Emphasize safe and effective employment of air-to-air weapons system.

(2) Since air-to-air weapons employment involves live firing, flight leads, lead safes, and tractor aircrew will closely monitor aircrew for any unsafe tendencies.

(3) Due to the dynamic nature of employing air-to-air weapons systems, commanding officers will ensure each ASWD brief includes detailed discussion of avoiding airborne debris and towed targets after air-to-air weapons employment.

(4) In order to perform proper post flight analysis, all aircraft participating in ASWD sorties require operable VTR/CVRS.

c. Ground/Academic Training. None.

d. Flight and Simulator Event Training. (6 Events, 7.8 Hours).

ASWD-700                      1.3                      2+ FA-18A/C/D A

Goal. Introduce aerial gunnery (circular pattern). Emphasize pattern procedures, pipper control, firing technique, and postflight analysis.

Requirement. Conduct a dry or live fire aerial gunnery pattern. Eight runs on a maneuvering or non-maneuvering banner/dart required for completion.

Performance Standards  
Able to achieve 10% hits.  
Flies a consistent pattern.  
Responds to range safety officer commands.

Prerequisite. AA-270.

Ordinance. 500 rds of 20 mm.

External Syllabus Support. One banner/dart tow aircraft, live aerial gunnery range.

ASWD-701                      1.3                      2+ FA-18A/C/D A

Goal. Practice aerial gunnery (forward quarter pattern) and evaluate firing technique.

Requirement. Conduct live fire aerial gunnery (forward quarter pattern). Eight runs on a maneuvering or non-maneuvering banner/dart required for completion.

Performance Standards  
Able to achieve 10% hits.  
Flies a consistent pattern.  
Responds to range safety officer commands.

Prerequisite. ASWD-700.

Ordnance. 500 rds of 20 mm.

External Syllabus Support. One banner/dart tow aircraft, live aerial gunnery range.

ASWD-702            1.3                    2+ FA-18A/C/D A

Goal. Track proficiency in employment of an AIM-9.

Requirement. Fire an AIM-9 against an airborne target.

Ordnance. 1 AIM-9M.

External Syllabus Support. Missile test range and airspace control agency. Surface search and aerial search radar platform, (EP-3, E-2C, etc). One BQM, AQM, or TALD with IR augmentation package.

ASWD-703            1.3                    2+ FA-18A/C/D A

Goal. Track proficiency in employment of an AIM-7.

Requirement. Fire an AIM-7 against an airborne target.

Ordnance. 1 AIM-7M/H.

External Syllabus Support. Missile test range and airspace control agency. Surface search and aerial search radar platform, (EP-3, E-2C, etc.). One BQM, AQM, or TALD with radar augmentation package.

ASWD-704            1.3                    2+ FA-18A/C/D A

Goal. Track proficiency in employment of an AIM-120.

Requirement. Fire an AIM-120 against an airborne target.

Ordnance. 1 AIM-120A/B/C.

External Syllabus Support. Missile test range and airspace control agency. Surface search and aerial search radar platform, (EP-3, E-2C, etc). One BQM, AQM, or TALD with radar augmentation package.

ASWD-705            1.3                    2 FA-18A/C/D A

Goal. Track proficiency in towing the banner.

Requirement. Tow the banner.

Ordnance. One banner.

2. Surface Specific Weapons Delivery (SSWD)

a. Purpose. To track SSWD.

b. General

(1) These events are to be used for tracking purposes only.

(2) No CRP is assigned to these sorties.

(3) Other training codes in the 200, 300, and 400 levels should be logged, in addition to the 500 level code, for core skill proficiency or CRP increase.

c. Ground/Academic Training. None.

d. Flight and Simulator Event Training. (18 Events, 23.4 hours).

<u>SSWD-710</u>	<u>1.3</u>	<u>1 FA-18A/C/D A</u>	<u>Goal</u> . Track proficiency in dropping live MK-82, 83, or 84 bombs.  <u>Requirement</u> . Must drop one bomb for completion.  <u>Ordinance</u> . At least one MK-82, 83, or 84 bomb.  <u>External Syllabus Support</u> . Live ordnance range.
<u>SSWD-711</u>	<u>1.3</u>	<u>1 FA-18A/C/D A</u>	<u>Goal</u> . Track proficiency in firing the M61A1 20mm Gun at a surface target.  <u>Requirement</u> . Must successfully employ the gun on two separate runs against a surface target for completion.  <u>Ordinance</u> . At least 250 rnds 20mm.  <u>External Syllabus Support</u> . Live strafing range.
<u>SSWD-712</u>	<u>1.3</u>	<u>1 FA-18A/C/D A</u>	<u>Goal</u> . Track proficiency in dropping live or inert CBU-99/100 Rockeye.  <u>Requirement</u> . Drop one Rockeye for completion.  <u>Ordinance</u> . At least one Rockeye.  <u>External Syllabus Support</u> . Live CBU range.
<u>SSWD-713</u>	<u>1.3</u>	<u>1 FA-18A/C/D A</u>	<u>Goal</u> . Track proficiency in dropping MK-77 Fire Bomb munition.  <u>Requirement</u> . Drop one MK-77 Fire Bomb for completion.  <u>Ordinance</u> . At least one MK-77 Fire Bomb.  <u>External Syllabus Support</u> . Live ordnance range.
<u>SSWD-714</u>	<u>1.3</u>	<u>1 FA-18A/C/D A</u>	<u>Goal</u> . Track proficiency in shooting live or inert 5.0" or 2.75" rockets.  <u>Requirement</u> . Shoot one pod of rockets for completion.  <u>Ordinance</u> . At least four 5" or seven 2.75" rocket.

External Syllabus Support. Live or inert ordnance range.

SSWD-715

1.3 1 FA-18A/C/D A

Goal. Track proficiency in employing battlefield illumination.

Requirement. Shoot two illumination rockets or drop two LUU-2/19 flares for completion.

Ordnance. At least four 5" or seven 2.75" illumination rockets and/or 4 LUU-2/19.

External Syllabus Support. Inert ordnance range.

SSWD-716

1.3 1 FA-18A/C/D A

Goal. Track proficiency in captive carry AGM-65E LASER Maverick employment.

Requirement. Functional captive AGM-65E LASER Maverick.

Ordnance. At least one captive AGM-65E LASER Maverick.

SSWD-717

1.3 1 FA-18A/C/D A

Goal. Track proficiency in shooting AGM-65E LASER Maverick.

Requirement. Must shoot one AGM-65E LASER Maverick.

Ordnance. At least one AGM-65E LASER Maverick.

External Syllabus Support. Live Surface-to-Air missile range that is laser safe.

SSWD-718

1.3 1 FA-18A/C/D A

Goal. Track proficiency in dropping laser guided bombs.

Requirement. Must drop one GBU-10, 12, 16 or 24, or an LGTR for completion.

Ordnance. At least one GBU-10, 12, 16, 24 or an LGTR.

External Syllabus Support. Live or inert ordnance range, laser safe range.

SSWD-719

1.3 1 FA-18A/C/D A

Goal. Track proficiency in captive carry of a JDAM.

Requirement. Captive carry one JDAM.

Ordnance. One captive JDAM.

SSWD-720

1.3 1 FA-18A/C/D A

Goal. Track proficiency in delivering JDAM.

Requirement. Deliver one JDAM.

Ordnance. One JDAM.

External Syllabus Support. Live ordnance range.

SSWD-721            1.3                    1 FA-18A/C/D A

Goal. Track proficiency in captive carry of a JSOW.

Requirement. Captive carry one JSOW.

Ordnance. One captive JSOW.

SSWD-722            1.3                    1 FA-18A/C/D A

Goal. Track proficiency in delivering JSOW.

Requirement. Deliver one JSOW.

Ordnance. One JSOW.

External Syllabus Support. Live ordnance range.

SSWD-723            1.3                    1 FA-18A/C/D A

Goal. Track proficiency in captive carry of AGM-88 HARM.

Requirement. Functional captive AGM-88 HARM.

Ordnance. At least one captive AGM-88 HARM.

SSWD-724            1.3                    1 FA-18A/C/D A

Goal. Track proficiency in shooting the AGM-88 HARM.

Requirement. Shoot one AGM-88 HARM.

Ordnance. At least one AGM-88 HARM.

External Syllabus Support. Live Air-to-Surface missile range with a range safety officer, emitter on the range.

SSWD-725            1.3                    1 FA-18A/C/D A

Goal. Track proficiency in captive carry of the SLAM(ER).

Requirement. Functional captive SLAM(ER), 1 AAW-13 pod.

Ordnance. One SLAM(ER), 1 AAW-13 pod.

SSWD-726            1.3                    1 FA-18A/C/D A

Goal. Track proficiency in shooting the SLAM(ER).

Requirement. Shoot one SLAM(ER).

Ordnance. At least one SLAM(ER), 1 AAW-13 pod.

External Syllabus Support. Live Air-to-Surface missile range with a range safety officer.



- SSWD-727                      1.3                      1 FA-18A/C/D A
- Goal.    Track proficiency in dropping a TALD.
- Requirement.    Drop one TALD.
- Ordnance.    At least one TALD.
- External Syllabus Support.    Inert or live ordnance range.
3. External Syllabus Support Non-Availability Tracking (TRK)
- a. Purpose.    To track non-availability of external syllabus support requirements.
- b. General.    In the event that ordnance or dissimilar adversary support (as required in the external syllabus support specific sortie description) is not available, the following tracking (TRK) codes shall be logged in addition to the syllabus event code.
- TRK-730                      Goal.    To track the non-availability of ordnance (as required in the external syllabus support specific sortie description).
- Requirement.    Every attempt shall be made to comply with the specific sortie descriptions and ordnance requirements. Upon successful completion of the training event, log the specific sortie training code in addition to TRK-730.
- Prerequisite.    Required ordnance is not available.
- TRK-731                      Goal.    To track the non-availability of dissimilar adversaries (as required in the external syllabus support specific sortie description).
- Requirement.    Every attempt shall be made to comply with the specific sortie descriptions and dissimilar adversary requirements. Upon successful completion of the training event, log the specific sortie training code in addition to TRK-731.
- Prerequisite.    Required dissimilar adversary support is not available.
- TRK-732                      Goal.    To track the non-availability for range support (as required in the external syllabus support specific sortie description).
- Requirement.    Every attempt shall be made to comply with the specific sortie descriptions and range requirements. Upon successful completion of the training event, log the specific sortie training code in addition to TRK-732.
- Prerequisite.    Required range support is not available.
161. EXPENDABLE ORDNANCE REQUIREMENTS
1. General.    Ordnance requirements are developed on a per aircrew basis as outlined in OPNAVNOTE 8010.
- a.    Support sortie ordnance requirements are not included in this table.

b. The required ordnance in this table is based on a single aircrew attaining initial competency in every event in the 200, 300, 400, and 600 Levels. It does not reflect maintenance of proficiency in accordance with the refly interval. The ordnance requirements below are for a single aircraft and do not account redundant training requirements due to instructor refly necessity.

c. Once initial competency has been attained in an event with the required ordnance (per the sortie description), inert ordnance may be substituted for live ordnance.

d. Sorties that give training officers the option to choose ordnance variant such as Mk-82/83/84, GBU-10/12/16, GBU-31/32/38, and 2.75"/5.0" rockets, are reflected in the table as a requirement for 1 of each variant of ordnance listed above.

e. FA-18A/C

<u>ORDNANCE</u>	<u>200</u>	<u>300</u>	<u>400</u>	<u>600</u>	<u>700</u>	<u>TOTAL</u>
BDU-48	12					12
MK-76	42		30	36		108
BDU-45	4		4			8
MK-83 (INERT)	4		4			8
LGTR	8		2	6		16
MK-82	8	12		12	1	33
MK-83	8	12		12	1	33
MK-84		12		12	1	25
GBU-12		12	14	6	1	33
GBU-16		12	14	6	1	33
GBU-10		12	14	6	1	33
GBU-31		6		2	1	9
GBU-32		6		2	1	9
GBU-38		6		2	1	9
CBU-99/100				2	1	3
2.75" ROCKET		28		14	7	49
2.75" RP		28	112			140
2.75" ILLUM			7		7	14
5.0" ROCKET		16		8	4	28
5.0" RP		16	64			80
MK-77					1	1
JSOW					1	1
HARM					1	1
SLAM(ER)					1	1
20 MM	1000	1250	500	750	1250	4750
LUU-2/19			4		2	6
AGM-65E		2	2		1	5
AIM-9					1	1
AIM-7					1	1
AIM-120					1	1
CHAFF 39 / 47	880/1320	800/1200	760/1140	720/1080		3160 / 4740
FLARES 39 / 47	440/1320	400/1200	380/1140	360/1080		1580 / 4740
TALD					1	1
BANNER					1	1

f. FA-18D

<u>ORDNANCE</u>	<u>200</u>	<u>300</u>	<u>400</u>	<u>600</u>	<u>700</u>	<u>TOTAL</u>
BDU-48	12					12
MK-76	42		30	36		108
BDU-45	4		4			8
MK-83 (INERT)	4		4			8
LGTR	8		2	6		16
MK-82	8	12	4	12	1	33
MK-83	8	12	4	12	1	33
MK-84		12	4	12	1	25
GBU-12		26		6	1	33
GBU-16		26		6	1	33
GBU-10		26		6	1	33
GBU-31		6		2	1	9
GBU-32		6		2	1	9
GBU-38		6		2	1	9
CBU-99/100				2	1	3
2.75" ROCKET		28		14	7	49
2.75" RP		126	14			140
2.75" ILLUM		7			7	14
5.0" ROCKET		16		8	4	28
5.0" RP		72	8			80
MK-77					1	1
JSOW					1	1
HARM					1	1
SLAM(ER)					1	1
20 MM	1000	1750		750	1250	4750
LUU-2/19		4			2	6
AGM-65E		4			1	5
AIM-9					1	1
AIM-7					1	1
AIM-120					1	1
CHAFF 39 / 47	880/1320	1200/1800	480/720	720/1080		3280 / 4920
FLARES 39 / 47	440/1320	600/1800	240/720	360/1080		1640 / 4920
TALD					1	1
BANNER					1	1

162. CAPTIVE ORDNANCE REQUIREMENTS

1. General. The required captive ordnance in this table reflects the total number of times an aircrew is required to carry the ordnance based on a single aircrew attaining initial competency in every event in the 200, 300, and 400 Levels. It does not reflect the maintaining of proficiency in accordance with the refly interval. The actual quantity of captive ordnance required to be on hand should be determined by the squadron commanding officer and requested by the squadron operations officer based on actual training requirements.

a. FA-18A/C

<u>CAPTIVE ORDNANCE</u>	<u>200</u>	<u>300</u>	<u>400</u>	<u>600</u>	<u>700</u>	<u>TOTAL</u>
HARM		1				1
AGM-65E	1	4			1	6
JDAM	1				1	2
JSOW						0
AIM-7	7	7	1	12		27
AIM-9	14	20	15	18		67
AIM-120	7	11	1	12		31

b. FA-18D

<u>CAPTIVE ORDNANCE</u>	<u>200</u>	<u>300</u>	<u>400</u>	<u>600</u>	<u>700</u>	<u>TOTAL</u>
HARM		1				1
AGM-65E	1	4			1	6
JDAM	1				1	2
JSOW						0
AIM-7	7	4		12		23
AIM-9	14	30	7	18		69
AIM-120	7	8		12		27

163. GROUND ORDNANCE REQUIREMENTS

1. General. The required ground ordnance in this table is based on a single aircrew attaining initial competency in every event in the 200, 300, and 400 Levels. It does not reflect maintenance of proficiency in accordance with the refly interval.

a. FA-18A/C

ORDNANCE	200	300	400	TOTAL
Ground HE			50	50
Ground WP			18	18
Ground Illum			8	8
Naval HE			10	10
Naval WP			2	2
Naval Illum			8	8

b. FA-18D

ORDNANCE	200	300	400	TOTAL
Ground HE		40	10	50
Ground WP		14	4	18
Ground Illum		8		8
Naval HE			10	10
Naval WP			2	2
Naval Illum			8	8

164. RANGE REQUIREMENTS

1. General. The range requirements in these tables are based on event requirements listed in the individual event descriptions. Units should make every effort to adhere to the requirements listed in the event descriptions, but commanding officers may waive requirements based on existing range capabilities and limitations.

Category I (Airspace)	Abbreviation	Name	Description	Notes
CAT I	MOA	Special Use Airspace or MOA	Per Flight Information Publications	
CAT I	RSTD	Restricted / Warning Area	Per Flight Information Publications	
CAT I	MTR	Military Training Route	Per Flight Information Publications	
CAT I	LAT	LAT Course	Approved LAT course. Normally preferred over an MTR for dedicated LAT sorties.	
CAT I	AA	Air-to-Air Range	Any airspace that can support BFM or ACM. May include Restricted Airspace, MOAs or Warning Areas for example	For Intercepts / BVR a minimum airspace of 40nm is usually required.
CAT I	AA GUNS	Air-to-Air Gunnery Range	Any airspace that can support Air-to-Air Gunnery on a towed Banner. Implies Restricted Airspace or Warning Areas for example.	
CAT I	MACH 1+	Supersonic	Any airspace that can support Supersonic Flight.	
CAT I	AAR	Air to Air Refueling	Any airspace that can support AAR.	
Category II (Capabilities)	Abbreviation	Name	Description	Notes
CAT II	TACTS	Tactical Air Combat Training System (TACTS)	TACTS range capable. A sophisticated airspace tracking and display instrumentation systems used primarily in ACM and threat WEZ recognition. All maneuvers are displayed real-time for a squadron Range Training Officer (RTO). All data is recorded to allow the aircrew to conduct post-mission analysis or "debriefs".	TACTS usually includes ACM, NDBS, EW, NDWS, ARM, capabilities. Implies RSTD Airspace.

Category II (Capabilities)	Abbreviation	Name	Description	Notes
CAT II	EW	Electronic Warfare	Threat Emitters providing a dynamic red/or gray force threat environment to enhance threat recognition, self-protection and defense suppression techniques.	
CAT II	Hi Fi EW	High Fidelity EW	Hi Fidelity (live) Emitters. Live actual SAM systems with operators. Can provide feedback via tape debrief.	Often a desired substitute for EW, may be cost prohibitive
CAT II	ACM	Air Combat Maneuvering	Supports training in A-A maneuvers and weapons employment under realistic conditions for manned high performance FW & RW aircraft. This includes weapon simulation (AIM-9, AIM-7, AIM-120) from launch to impact with kill & miss indications as well as Pk and reason for miss provided.	
CAT II	ARM	Anti Radiation Missile	Supports training to ARM delivery with simulated missile fly-out and kill indications	
CAT II	CEDS	Countermeasures Employments Detection System	Supports training to countermeasures by linking to the ALE via TACTS systems for EW training. Normally included in a TACTS EW range.	
CAT II	ATIS	Avenger TACTS Interface	Allows the LAAD Avenger team to plug into TACTS and evaluate control/scoring	
CAT II	LSTSS	Large Scale Target Sensor System	A remote control scoring system capable of tracking Laser designator spots	



Category II (Capabilities)	Abbreviation	Name	Description	Notes
CAT II	IWTS	Imaging Weapons Training System	Virtual simulation to provide pilot uplink imagery of weapon seeker image through TOF to actual target	Supports SLAM-ER
CAT II	URBN WPNS	Urban Weapons Impact Range	Urban CAS range capable of JCAS, LT INERT and LSR.	
CAT II	URBN TRG	Urban Training	Urban area with overlying Restricted or MOA training airspace. Does not imply authorized weapons release or Laser use.	Example is a town such as Yuma under the Dome MOA.
CAT II	RKD RNG	Raked Range	Concentric circle range, with WISS. LSR and RLSR a desired capability but must be specified. Night lighting capability implied.	
CAT II	LSR	Laser Safe Range	Supports Airborne Laser Firing.	
CAT II	RLSR	Remote Laser Capable	A remote operated ground Laser may designate a target	Should be standard on a RKD RNG
CAT II	WISS	Weapons Impact Scoring Set	Scores bombing to designated targets. Scores can be relayed via voice of fax.	Should be standard on a RKD RNG
CAT II	NDBS	No Drop Bomb Scoring	Scores simulated bombing to designated targets. Scores can be relayed via tape debrief.	Should be standard on TACTS
CAT II	STRAFE	Strafe Pit / Target	A scored Strafing Pit or Target.	Often located near a RKD RNG
CAT II	TGT	Target	Any point- target that is authorized to release INERT weapons on.	May include an unscored Raked Range
CAT II	IR TGT	IR Significant Target	IR Significant Target	
CAT II	RDR TGT	Radar Significant Target	Radar Significant Target	
CAT II	LINK	LINK 16	LINK 16 available.	

Category III (Ordnance Restrictions)	Abbreviation	Name	Description	Notes
CAT III	HE	HE Impact Area	Supports live HE ordnance. Implies EXP.	
CAT III	JCAS	JCAS TTPs	Supports all three types of CAS in the range. Allows JTAC personnel on range. Implies LSR and either INERT or HE.	
CAT III	LT INERT	Light Inert	Light Inert Impact Area.	MK-76 / LGTR / BDU-48 / Gun / Rockets
CAT III	HVY INERT	Heavy Inert	Heavy Inert Impact Area.	500lb and above
CAT III	JDAM	JDAM Impact Area / Target	Supports JDAM release.	
CAT III	JSOW	JSOW Impact Area / Target	Supports JSOW release.	
CAT III	LGB	LGB Impact Area / Target	Supports LGB (HE or HVY INERT) release and Laser firing	
CAT III	AA MISSILE	AA Missile Firing Range	Supports AA Missile Firing	AIM-9 / AIM-7 / AIM-120
CAT III	AS MISSILE	A/S Missile Firing Range	Supports AS Missile Firing	LMAV / LGB / Hellfire / TOW
CAT III	ARM MISSILE	ARM Missile Firing Range	Supports ARM Missile Firing. Requires an EW emitter.	AGM-88
CAT III	EXP	Expendables Authorized	Supports use of Chaff & Flares	
CAT III	ICM	Improved Conventional Munitions	Supports ICM or Cluster munitions	

Category IV (Threat Replication)	Abbreviation	Name	Description	Notes
CAT IV	IMC	Instrumented Multi-Spectral Cues	Full size replicas of actual AAA and SAM systems, IR significant and normally linked to LSTSS and NDBS / WISS	
CAT IV	MOCK	Mock-up Targets	Full size replicas of Mechanized or Threat vehicles. IR significant desired. Weapons release not implied.	
CAT IV	GWVS	Ground Warfare Visual Simulator	Provide enhanced battlefield realism via simulation of muzzle flashes for AAA and launch of SAMs	
CAT IV	SST	Smokey SAM Team	Smoke Rockets to simulate MANPADs or RF SAMs	
CAT IV	COMPLEX	Complex Target Array	Dispersed target array requiring sorting of targets and may include infrastructures such as runways, facilities, POL sites, etc. Implies INERT and LSR. WISS desired. WISS desired.	
CAT IV	TGT-FORM	Tactical Targets in Formation	Full size actual or replicas of Mechanized or Threat vehicles. IR significant desired. Implies INERT and LSR. WISS desired.	
CAT IV	TGT-DISP	Tactical Targets Dispersed	Full size actual or replicas of Mechanized or Threat vehicles. IR significant desired. Implies INERT and LSR. WISS desired.	
CAT IV	TGT-MOVE	Tactical Targets Moving	Full size actual or replicas of Mechanized or Threat vehicles. IR significant desired. Implies LT INERT and LSR. WISS & LSTSS desired.	

Category IV (Threat Replication)	Abbreviation	Name	Description	Notes
CAT IV	RECCE ARRAY	Actual Tactical Targets in an Array for PID	Full size actual Mechanized or Threat vehicles. Organized in an array in order to allow PID. Weapons release not implied.	
CAT IV	STRUCTR	Structures	May include a building, bunker or revetment. IR significant desired. Inert weapons release authorized. LSR capable. WISS desired.	

170. MOS SYLLABUS MATRIX. These matrices display specific 200 - 700 level event information such as; flight/simulator hours, refly interval, prerequisites, CRP, chaining, etc.

F/A-18 PILOT/WSO																	
200 SERIES CORE SKILL BASIC																	
STAGE	TRNG CODE	EVENT DESC	FLT HOURS	SIM HOURS	REFLY INTVL A/C	REFLY INTVL D	DEVICE	# OF A/C	CONDITIONS	PREREQ	POI A/C	POI D	EVAL	CRP A/C	CRP D	CHAINING	EVENT CONV
FAM																	
SFAM	200	EP SIM		1.0	90	90	S				R	R		0.2	0.2		
FAM	201	DAY FAM 1V0 ADV HANDLING	1.3		90	90	A	1+		200	R	R		0.2	0.2		210
FAM	202	1V1 AWI	1.3		180	180	A	2		200	R	R		0.2	0.2	201	242
			2.6	1.0									0.6	0.6			
AAR																	
AAR	210	Day AAR	1.3	0.0	365	365	A	1+			R	R		0.3	0.3	201	200
AAR	211	Night AAR	1.3	0.0	365	365	A	1+	(NS)	210	R	R		0.3	0.3	201, 210, (251 NS)	201
			2.6	0.0									0.6	0.6			
AS																	
SAS	230	SACT		1.0	*	*	S							0.4	0.4		202
SAS	231	SENSOR/TPOD/LDT SIM		1.0	*	*	S							0.4	0.4		220
SAS	232	HI/MED/LOW ANGLE DIVE (CBU/ROCKET)		1.0	*	*	S							0.4	0.4		222
SAS	233	JDAM SIM		1.0	*	*	S							0.4	0.4		320
SAS	234	LMAV/LGB SIM		1.0	*	*	S							0.4	0.4		260
AS	235	SACT	1.3		180	180	A	2	(NS)	230	R	R		0.4	0.4	201, (251 NS)	203
AS	236	TGT ACQ/PID	1.3		180	180	A	1+	(NS)	231	R	R		0.4	0.4	201, (251 NS)	
AS	237	HI ANGLE/MED ANGLE DIVE	1.3		90	90	A	2+	(NS)	232	R	R		0.4	0.4	201, (251 NS)	222
AS	238	MED/LOW STRAFE	1.3		180	180	A	2+	(NS)	237	R	R		0.4	0.4	201, (251 NS)	323
AS	239	SGL/SEC LOW ANGLE POP	1.3		90	90	A	2+	(NS)	238	R	R		0.4	0.4	201, (251 NS)	223
AS	240	TPOD DELIVERIES	1.3		180	180	A	2+	(NS)	231				0.4	0.4	201, (251 NS)	224
AS	241	LMAV/LGB ATK	1.3		180	180	A	2+	(NS)	234, 240				0.4	0.4	201, 240, (251 NS)	224
AS	242	JDAM	1.3		180	180	A	2+	(NS)	233	R	R		0.4	0.4	201, (251 NS)	582
AS	243	BUDDY LASE/BUDDY BOMB	1.3		180	180	A	2+	(NS)	241	R	R		0.8	0.8	201, 240, 241, (251 NS)	226
			11.7	5.0									6.0	6.0			
NS																	
SNS	250	FAM SIM		1.0	*	*	S		NS					0.0	0.0		209
NS	251	FAM / FORM / AWI	1.3		180	180	A	2	NS	201, 250	R	R		0.2	0.2	201, 202	210
NS	252	2V2 INTERCEPTS	1.3		*	*	A	2	NS	251				0.2	0.2	201, 202, 251	211
NS	253	HI/MED ANGLE DIVE	1.3		*	*	A	2	NS	239, 251	R	R		0.2	0.2	201, 239, 251	212
NS	254	SEC LGB DELIVERIES	1.3		*	*	A	2	NS	241, 253				0.2	0.2	201, 240, 241, 251	214
			5.2	1.0									0.8	0.8			

F/A-18 PILOT/WSO																	
200 SERIES CORE SKILL BASIC																	
STAGE	TRNG CODE	EVENT DESC	FLT HOURS	SIM HOURS	REFLY INTVL A/C	REFLY INTVL D	DEVICE	# OF A/C	CONDITIONS	PREREQ	POI A/C	POI D	EVAL	CRP A/C	CRP D	CHAINING	EVENT CONV
AA																	
AA	260	1V1 OFFENSIVE BFM	1.3		180	180	A	2		201,202	R	R		0.4	0.4	201	231
AA	261	1V1 DEFENSIVE BFM	1.3		180	180	A	2		260	R	R		0.4	0.4	201	232
AA	262	1V1 NEUTRAL BFM (HA/FLAT/ROLLER/FQMD)	1.3		90	90	A	2		261	R	R		0.4	0.4	201	233
AA	263	1V1 DISSIMILAR BFM	1.3		365	365	A	1		262	R	R		0.4	0.4	201,262	234
SAA	264	RADAR/SRR MECH SIM		1.0	365	365	S							0.4	0.4		240
AA	265	2V1/2V2 TAP-THE-CAP (DISSIMILAR)	1.3		180	180	A	2		262,264	R	R		0.4	0.4	201	236
SAA	266	BVR SIM		1.0	365	365	S			264				0.4	0.4	201	241
SAA	267	EA SIM		1.0	365	365	S			266	R	R		0.4	0.4		331
AA	268	2V2 BVR	1.3		180	180	A	2		265,266	R	R		0.5	0.5	201,202,264 266	244
AA	269	2V2 VID (DISSIMILAR)	1.3		180	180	A	2		268	R	R		0.5	0.5	201,202,264 266	243
AA	270	4VX PHID	1.3		*	*	A	4		269				0.5	0.5	201,264,266 268	245
			10.4	3.0										4.7	4.7		
LAT																	
SLAT	280	LAT SIM		1.0	*	*	S			230-243				0.3	0.3		204
LAT	281	SGL SHIP LAT (2/3D, TRXN, TGT ATTACK)	1.3		180	180	A	2		280	R	R		0.3	0.3	201,235,239	206
LAT	282	SEC LAT (TRXN, TGT ATTACK) - CK RIDE	1.3		*	*	A	2		281				0.3	0.3	201,235,239	208
			2.6	1.0										0.9	0.9		
CAS																	
SCAS	290	TYPE I CAS SIM (SYSTEM MGMT)		1.0	*	*	S			230,243	R	R		0.4	0.4		250
CAS	291	DAY TYPE I CAS	1.3		180	180	A	2		290	R	R		0.5	0.5	201	250
CAS	292	NIGHT TYPE I CAS	1.3		180	180	A	2	NS	254,291	R	R		0.5	0.5	201,251,291	252
			2.6	1.0										1.4	1.4		
FLT/SIM HOUR TOTALS FOR PHASE			37.7	12.0	CRP TOTALS FOR PHASE									15.0	15.0		

F/A-18 PILOT/WSO																	
300 SERIES CORE SKILL ADVANCED																	
STAGE	TRNG CODE	EVENT DESC	FLT HOURS	SIM HOURS	REFLY INTVL A/C	REFLY INTVL D	DEVICE	# OF A/C	CONDITIONS	PREREQ	POI A/C	POI D	EVAL	CRP A/C	CRP D	CHAINING	EVENT CONV
CAS																	
SCAS	300	TYPE II CAS SIM		1.0	*	*	S			200 Level				0.8	0.5		350
CAS	301	DAY TYPE II / III CAS	1.3		180	180	A	2		300	R	R		1.0	0.5	201	351
CAS	302	NIGHT TYPE II / III CAS	1.3		180	180	A	2	NS	301	R	R		1.0	0.5	201,251	352
CAS	303	URBAN CAS	1.3		*	*	A	2	(NS)	302				1.0	0.5	201, (251 NS)	353
			3.9	1.0										3.8	2.0		
AR																	
AR	310	AR (GP)	1.3		180	180	A	2	(NS)	200 Level	R	R		0.8	0.5	201,236,237 238,240, (251 NS)	261
AR	311	DAY AR (PGM)	1.3		180	180	A	2		310	R	R		0.8	0.5	201,236,238 241	360
AR	312	NIGHT AR (PGM)	1.3		180	180	A	2	NS	311	R	R		0.8	0.5	201,236,238 242,251	361
			3.9	0.0										2.4	1.5		
SCAR																	
SCAR	320	DAY SCAR	1.3		365	365	A	2		312	R	R		0.8	0.6	201	362
SCAR	321	NIGHT SCAR	1.3		365	365	A	2	NS	320	R	R		0.8	0.6	201,251	481 A/C 385 D
			2.6	0.0										1.6	1.2		
AAW																	
SAAW	330	SWEEP		1.0	365	365	S			260-270	R	R		0.7	0.4	264,266	332
AAW	331	SCREEN / CLOSE ESC	1.3		180	180	A	2	(NS)	330	R	R		0.8	0.4	201,202,264, 266,268, (251 NS)	333
AAW	332	DAY SWEEP / PSS	1.3		180	365	A	4		331	R	R		0.8	0.4	201,202,264, 266,268	332
AAW	333	NIGHT SWEEP / PSS	1.3		180		A	4	NS	332	R			0.8		201,202,251, 264,266,268	338
AAW	334	EA	1.3		365		A	2+	(NS)	260-270	R			0.8		201,202,264, 266,267,268, (251 NS)	337
SAAW	335	DCA		1.0	365	365	S			260-270	R	R		0.7	0.4	264,266	334
AAW	336	DAY DCA	1.3		180	180	A	2		335	R	R		0.8	0.4	201,202,264, 266,268,269	334
AAW	337	DAY DCA	1.3		180	365	A	4		336	R	R		0.8	0.5	201,202,264, 266,268,269	336
AAW	338	NIGHT DCA	1.3		180		A	4	NS	337	R			0.8		201,202,251, 264 266,268	435
			9.1	2.0										7.0	2.5		
SEAD																	
SSEAD	340	JSOW SIM		0.5	365	365	S				R	R		0.4	0.4		583
SSEAD	341	HARM SIM (PP / TOO)		1.0	365	365	S				R	R		0.4	0.4		321
SEAD	342	SEAD (HARM)	1.3		365	365	A	2	(NS)	341	R	R		0.4	0.4	201, (251 NS)	585
			1.3	1.5										1.2	1.2		

F/A-18 PILOT/WSO																	
300 SERIES CORE SKILL ADVANCED																	
STAGE	TRNG CODE	EVENT DESC	FLT HOURS	SIM HOURS	REFLY INTVL A/C	REFLY INTVL D	DEVICE	# OF A/C	CONDITIONS	PREREQ	POI A/C	POI D	EVAL	CRP A/C	CRP D	CHAINING	EVENT CONV
AI																	
SAI	350	AI (LGB/JDAM) 2 ADV		1.0	365	365	S	2		200Level 338 A/C	R	R		0.8	0.6	264,266	470
AI	351	DAY LOW ALT AI (GP / AGGRESSED)	1.3		180	180	A	2		350	R	R		0.8	0.6	201	270
AI	352	DAY HIGH ALT AI (PGM / AGGRESSED)	1.3		180	180	A	4		351	R	R		0.8	0.6	201,235,236,240 241,242,264,266 268	272
AI	353	NIGHT HIGH ALT AI (LGB / UNAGGRESSED)	1.3		180	180	A	4	NS	352	R	R		0.8	0.6	201,235,236,240 241,251	271
AI	354	NIGHT HIGH ALT AI (JDAM / AGGRESSED)	1.3		180	180	A	4	NS	353	R	R		0.8	0.6	201,235,242,251 264,266 268	370
			5.2	1.0										4.0	3.0		
FAC(A)																	
SFAC(A)	380	TYPE I / II / III SIM		1.0		*	S			303,321					0.4		387
SFAC(A)	381	ADVERSE WX HI THRT SIM		1.0		*	S			380					0.4		387
FAC(A)	382	FW PGM	1.3			*	A	2		381					0.7	201,301,310,311 320,383	387
FAC(A)	383	FW GP	1.3			90	A	2		381		R			0.7	201,291,310	380
FAC(A)	384	RW TYPE I / II / III	1.3			*	A	2	(NS)	381					0.7	201,310,311,320 (251 NS), (312 NS), (321 NS)	384
FAC(A)	385	URBAN TYPE I / II / III	1.3			*	A	2	(NS)	381					0.7	201,383(251 NS)	387
FAC(A)	386	AIRSPOT	1.3			*	A	2	(NS)	381					0.7	201(251 NS)	383
FAC(A)	387	NIGHT FAC(A) BASICS	1.3			180	A	2	NS	381		R			0.7	201,251,291,292 301,302,310,311 312,320 321,383	385
FAC(A)	388	DAY MED THREAT	1.3			365	A	2		382-387		R			0.7	201,291,310,320 383	387
FAC(A)	389	NIGHT MED THREAT	1.3			365	A	2	NS	388		R			0.7	201,251,291,292 301,302,310,311 312,320,321,383 387,388	386
FAC(A)	390	TARGET AREA INTEGRATION	1.3			365	A	2	(NS)	389		R			0.7	201,291,301,310 311,320,383,388 (251 NS), (292 NS), (302 NS), (312 NS), (321 NS), (387 NS), (389 NS)	387
FAC(A)	391	FAC(A) ESCORT	1.3			*	A	2	(NS)	200 Level					0.7	201 (251 NS)	325
			13.0	2.0										0.0	7.8		
TAC(A)																	
TAC(A)	392	TAC(A) INTRO	1.3			545	A	1	(NS)	390		R			0.4	201, (251 NS)	390
TAC(A)	393	MULTI-AGENCY TAC(A) QUAL	1.3			*	A	1	(NS)	392					0.4	201,392, (251 NS)	391
			2.6	0.0										0.0	0.8		
FLT/SIM HOUR TOTALS FOR PHASE			35.1	6.5	CRP TOTALS FOR PHASE									20.0	20.0		



F/A-18 PILOT/WSO																	
400 SERIES CORE PLUS																	
STAGE	TRNG CODE	EVENT DESC	FLT HOURS	SIM HOURS	REFLY INTVL A/C	REFLY INTVL D	DEVICE	# OF A/C	CONDITIONS	PREREQ	POI A/C	POI D	EVAL	CRP A/C	CRP D	CHAINING	EVENT CONVY
CORE PLUS 400 SERIES (LOW PROBABILITY / HIGH RISK MISSIONS)																	
E/CQ																	
SECQ	400	E/CQ SIM		1.0	*	*	S				R	R		0.0	0.0		490
ECQ	401	DAY FCLP	1.3		365	365	A	1		400	R	R		0.1	0.1	201	491
ECQ	402	NIGHT FCLP	1.3		365	365	A	1	N	401	R	R		0.1	0.1	201, (251 NS)	492
ECQ	403	DAY E/CQ	1.3		365	365	A	1		402	R	R		0.1	0.1	201, 401	613
ECQ	404	NIGHT E/CQ	1.3		365	365	A	1	N	403	R	R		0.1	0.1	201, 401, 402, 403, (251 NS)	615
			5.2	1.0									0.4	0.4			
WAS																	
SWAS	410	MINE LAYING OPS SIM		1.0	*		S				R			0.0			
WAS	411	SSC	1.3		730		A	2	(NS)	282, 312	R			0.0		201, 311 (312 NS), (251 NS)	
WAS	412	WASEX	1.3		730		A	2	(NS)	352	R			0.0		201, (353 NS), (251 NS)	
			2.6	1.0									0.0	0.0			
NS																	
NS	430	SEC LOW LEVEL / TGT ATTK	1.3		*	*	A	2	NS	254, 282				0.2	0.2	201, 239, 251	410
NS	431	SGL LAT CHASE	1.3		*	*	A	2	NS	430				0.2	0.2	201, 251, 281	411
NS	432	SEC LAT TGT ATTK	1.3		365	365	A	2	NS	431	R	R		0.2	0.2	201, 239, 251, 281	412
			3.9	0.0									0.6	0.6			
ESCORT																	
ESC	440	CONVOY ESCORT	1.3		365	365	A	2	(NS)	200 LVL, 312	R	R		0.1	0.3	201, (251 NS)	
ESC	441	ASSAULT SPT ESCORT	1.3		365	365	A	2	(NS)	200 LVL, 312	R	R		0.2	0.2	201, (251 NS)	363
			2.6	0.0									0.3	0.5			
AAW																	
AAW	450	HELO/PROP ATTACKS	1.3		365	365	A	2	(NS)	338	R	R		0.1	0.1	201, (251 NS)	432
			1.3	0.0									0.1	0.1			
LFE																	
LFE	470	DAY LFE	1.3		365	365	A	6+		200 LVL	R	R		0.2	0.4	201	471
LFE	471	NIGHT LFE	1.3		365	365	A	6+	NS	200 LVL	R	R		0.2	0.4	201, 251, 470	472
			2.6	0.0									0.4	0.8			

F/A-18 PILOT/WSO																		
400 SERIES CORE PLUS																		
STAGE	TRNG CODE	EVENT DESC	FLT HOURS	SIM HOURS	REFLY INTVL A/C	REFLY INTVL D	DEVICE	# OF A/C	CONDITIONS	PREREQ	POI A/C	POI D	EVAL	CRP A/C	CRP D	CHAINING	EVENT CONV	
FAC (A)																		
SFAC (A)	480	TYPE I/II/III SIM		1.0	*		S			303,321				0.2				
SFAC (A)	481	ADVERSE WX HI THRT SIM		1.0	*		S			480				0.2				
FAC (A)	482	FW PGM	1.3		*		A	2		481				0.2		201,301,310,311 320,483		
FAC (A)	483	FW GP	1.3		90		A	2		481	R			0.2		201,291,310		
FAC (A)	484	RW TYPE I/II/III	1.3		*		A	2	(NS)	481				0.2		201,310,311,320 (251 NS), (312 NS), (321 NS)		
FAC (A)	485	URBAN TYPE I/II/III	1.3		*		A	2	(NS)	481				0.2		201,483, (251 NS)		
FAC (A)	486	AIRSPOT	1.3		*		A	2	(NS)	481				0.2		201, (251 NS)		
FAC (A)	487	NIGHT FAC (A) BASICS	1.3		180		A	2	NS	481	R			0.2		201,251,291,292 301,302,310,311 312,320,321,483	481	
FAC (A)	488	DAY MED THREAT	1.3		365		A	2		482-487	R			0.2		201,291,310,320 483		
FAC (A)	489	NIGHT MED THREAT	1.3		365		A	2	NS	488	R			0.2		201,251,291,292 301,302,310,311 312,320,321,483 487,488		
FAC (A)	490	TARGET AREA INTEGRATION (FAC (A) QUAL)	1.3		365		A	2	(NS)	489	R			0.2		201,291,301,310 311,320,483,488 , (251 NS), (292 NS), (302 NS), (312 NS), (321 NS), (487 NS), (489 NS)		
FAC (A)	491	ADVERSE WX, ELEVATED THREAT	1.3		*	730	A	2	(NS)	490 A/C 390 D		R		0.2	0.5	201,291,301,310 311,320,483,488 (251 NS), (292 NS), (302 NS), (312 NS), (321 NS), (489 NS)		
FAC (A)	492	UAV / UCAV INTEGRATION	1.3		*	*	A	2		490 A/C 381 D				0.2	0.5	201		
FAC (A)	493	NSFS AIRSPOT	1.3		*	*	A	2		490				0.2	0.5	201		
FAC (A)	494	AC-130 CFF	1.3		*	*	A	2		490				0.2	0.5	201		
ESCORT	495	FAC (A) ESCORT	1.3		*		A	1	(NS)	200 Level				0.2		201, (251 NS)	325	
			18.2	2.0											3.2	2.0		
TAR																		
TAR	496	EO / IR AR	1.3			365	A	1		200 Level					0.2	201	280	
TAR	497	SAR / IR AR	1.3			365	A	1	(NS)	496		R			0.2	201,496, (251 NS)	281	
TAR	498	DATALINK	1.3			*	A	1	(NS)	497					0.2	201, (251 NS)	282	
			3.9	0.0											0.0	0.6		
FLT/SIM HOUR TOTALS FOR PHASE			39.0	4.0	CRP TOTALS FOR PHASE										0.0	5.0		

F/A-18 PILOT/WSO																	
500 SERIES INSTRUCTOR TRAINING																	
STAGE	TRNG CODE	EVENT DESC	FLT HOURS	SIM HOURS	REFLY INTVL A/C	REFLY INTVL D	DEVICE	# OF A/C	CONDITIONS	PREREQ	POI A/C	POI D	EVAL	CRP A/C	CRP D	CHAINING	EVENT CONV
LATI																	
SLATI	510	IAW MAWTS-1 PROGRAM GUIDE		1.0	*	*	S						E	0.0	0.0		510
LATI	511	IAW MAWTS-1 PROGRAM GUIDE	1.3		*	*	A	2					E	0.0	0.0		511
LATI	512	IAW MAWTS-1 PROGRAM GUIDE	1.3		*	*	A	2					E	0.0	0.0		512
LATI	513	IAW MAWTS-1 PROGRAM GUIDE	1.3		*	*	A	2					E	0.0	0.0		513
			3.9	1.0										0.0	0.0		
ACTI																	
ACTI	520	IAW MAWTS-1 PROGRAM GUIDE	1.3		*	*	A	2					E	0.0	0.0		520
ACTI	521	IAW MAWTS-1 PROGRAM GUIDE	1.3		*	*	A	2					E	0.0	0.0		521
ACTI	522	IAW MAWTS-1 PROGRAM GUIDE	1.3		*	*	A	2					E	0.0	0.0		522
			3.9	0.0										0.0	0.0		
NSI																	
SNSI	530	IAW MAWTS-1 PROGRAM GUIDE		1.0	*	*	S		NS				E	0.0	0.0		530
NSI	531	IAW MAWTS-1 PROGRAM GUIDE	1.3		*	*	A	2	NS				E	0.0	0.0		530
NSI	532	IAW MAWTS-1 PROGRAM GUIDE	1.3		*	*	A	2	NS				E	0.0	0.0		531
NSI	533	IAW MAWTS-1 PROGRAM GUIDE	1.3		*	*	A	2	NS				E	0.0	0.0		532
			3.9	1.0										0.0	0.0		
FAC(A) I																	
FAC(A) I	540	IAW MAWTS-1 PROGRAM GUIDE	1.3		*	*	A	2	(NS)				E	0.0	0.0		540
FAC(A) I	541	IAW MAWTS-1 PROGRAM GUIDE	1.3		*	*	A	2	(NS)				E	0.0	0.0		541
FAC(A) I	542	IAW MAWTS-1 PROGRAM GUIDE	1.3		*	*	A	2	NS				E	0.0	0.0		542
			3.9	0.0										0.0	0.0		
TAC(A) I																	
TAC(A) I	550	IAW MAWTS-1 PROGRAM GUIDE	1.3		*	*	A	2	(NS)				E	0.0	0.0		550
			1.3	0.0										0.0	0.0		
FLT/SIM HOUR TOTALS FOR PHASE			16.9	1.0	CRP TOTALS FOR PHASE									0.0	0.0		

F/A-18 PILOT/WSO																	
600 SERIES REQUIREMENTS, QUALIFICATIONS, AND DESIGNATIONS																	
STAGE	TRNG CODE	EVENT DESC	FLT HOURS	SIM HOURS	REFLY INTVL A/C	REFLY INTVL D	DEVICE	# OF A/C	CONDITIONS	PREREQ	POI A/C	POI D	EVAL	CRP A/C	CRP D	CHAINING	EVENT CONV
RQD	600	NATOPS CHECK	1.3	1.0	365	365	A/S	1+					E	0.0	0.0	200	600
RQD	601	INSTRUMENT CHECK	1.3	1.0	365	365	A/S	1+	(NS)				E	0.0	0.0	200	601
RQD	603	D/N STRAT TANKER	1.3		545	545	A	1+	(NS)					0.0	0.0		603
RQD	604	PMCF SIM		1.0	1095	1095	S				R		E	0.0	0.0		604
RQD	605	SEC LEAD PROF FLT	1.3		90	90	A	2			R			0.0	0.0		605
RQD	606	DIV LEAD PROF FLT	1.3		180	180	A	4			R			0.0	0.0	605	606
RQD	607	MSN CMDR PROF FLT	1.3		365	365	A	6+			R			0.0	0.0	606, 605	607
			7.8	3.0										0.0	0.0		
QUALIFICATIONS																	
QUAL	610	LAT QUAL	1.3		*	*	A	2		204-208	R			0.0	0.0		610
QUAL	611	DAY CQ	1.3		*	*	A	1+		400, 401, 403	R			0.0	0.0		613
QUAL	612	NIGHT CQ	1.3		*	*	A	1+	N	400, 401-404	R			0.0	0.0		615
QUAL	613	ACM QUAL	1.3		*	*	A	4		260-270				0.0	0.0		616
QUAL	614	FAC (A) QUAL	1.3		*	*	A	2		480-490 A/C 380-390 D				0.0	0.0		619
QUAL	615	NSQ HI	1.3		*	*	A	2	NS	250-254				0.0	0.0		621
QUAL	616	NSQ LO	1.3		*	*	A	2	NS	NSQ HI 430-432				0.0	0.0		622
QUAL	617	TAC (A) QUAL	1.3		*	*	A	1		FAC (A) 392-393				0.0	0.0		623
QUAL	618	LSO QUAL			*	*								0.0	0.0		624
QUAL	619	PMCF	1.3		*	*	A	2		604			E	0.0	0.0		631
			11.7	0.0										0.0	0.0		
SECTION LEAD																	
DESG	620	SECT LD: 1V1 AWI	1.3		*	*	A	2		200 & 300 LEVEL			E	0.0	0.0	201, 202	640
DESG	621	SECT LD: BFM (OFF / DEF / HA)	1.3		*	*	A	2		620			E	0.0	0.0	201, 262	641
DESG	622	SECT LD: 2V1/2 ACM	1.3		*	*	A	2		621			E	0.0	0.0	201, 265	642
DESG	623	SECT LD: DCA	1.3		*	*	A	2		622			E	0.0	0.0	201, 268, 269 335, 336	643
DESG	624	SECT LD: MED / HI ANGLE DIVE DELIV	1.3		*	*	A	2		620			E	0.0	0.0	201, 237	644
SDESG	625	SECT LD: GP BOMBS LGB / CBU SIM		1.0	*	*	S			624			E	0.0	0.0		649
SDESG	626	SECT LD: DAY TYPE I/II CAS SIM		1.0	*	*	S			625			E	0.0	0.0	290, 300	649
DESG	627	SECT LD: LGB BUDDY LASE BUDDY BOMB	1.3		*	*	A	2	(NS)	626			E	0.0	0.0	201, 240, 241 243, (251 NS)	645
DESG	628	SECT LD: HI / MED ALT AR (GP/CBU)	1.3		*	*	A	2	(NS)	627			E	0.0	0.0	201, 236, 237 238, 240, 310 (251 NS)	648
DESG	629	SECT LD: NIGHT TYPE I/II CAS	1.3		*	*	A	2	NS	628			E	0.0	0.0	201, 292, 302 241, 240, 251	647
DESG	630	SECT LD: DAY LO ALT AI (GP)	1.3		*	*	A	2		624			E	0.0	0.0	201, 351	649
DESG	631	SECT LD: NIGHT AI - CHECK RIDE	1.3		*	*	A	2	NS	620-630	R	R	E	0.0	0.0	201, 235, 242 251, 264, 266 268, 350	649
			13.0	2.0										0.0	0.0		

F/A-18 PILOT/WSO																	
600 SERIES REQUIREMENTS, QUALIFICATIONS, AND DESIGNATIONS																	
STAGE	TRNG CODE	EVENT DESC	FLT HOURS	SIM HOURS	REFLY INTVL A/C	REFLY INTVL D	DEVICE	# OF A/C	CONDITIONS	PREREQ	POI A/C	POI D	EVAL	CRP A/C	CRP D	CHAINING	EVENT CONV
DIVISION LEAD																	
DESG	640	DIV LD: DCA	1.3		*	*	A	4		631			E	0.0	0.0	201,264,266 267,268,335 336,337	650
DESG	641	DIV LD: OCA SWEEP	1.3		*	*	A	4	(NS)	640			E	0.0	0.0	201,264,266 268,330,332, (251 NS)	651
DESG	642	DIV LD: AI (NIGHT - LGB)	1.3		*	*	A	4	NS	641			E	0.0	0.0	201,235,240 241,251,266, 268,352,353	653
DESG	643	DIV LD: SCAR	1.3		*	*	A	4		631			E	0.0	0.0	201,310, 311	652
DESG	644	DIV LD: AI (JDAM) - CHECKRIDE	1.3		*	*	A	4	(NS)	640-643	R	R	E	0.0	0.0	201,235,236 242,264,266 268,350,352, (251 NS)	659
			6.5	0.0										0.0	0.0		
MISSION COMMANDER																	
DESG	650	MC: LFE (DCA)	1.3		*		A	8+	(NS)	470,471, 644			E	0.0	0.0	201,470,471, (251 NS)	670
DESG	651	MC: LFE (DAY AI)	1.3		*		A	8+		470,471, 644			E	0.0	0.0	201,470	671
DESG	652	MC: LFE (NIGHT AI)	1.3		*		A	8+	NS	650,651	R	R	E	0.0	0.0	201,470,471, 251	679
			3.9	0.0										0.0	0.0		
INSTRUCTOR DESIGNATIONS																	
IDESG	660	TOPGUN			*	*	A						E	0.0	0.0		696
IDESG	661	MDTC			*	*	A						E	0.0	0.0		697
IDESG	662	WTI			*	*	A						E	0.0	0.0		699
			0.0	0.0										0.0	0.0		
FLT/SIM HOUR TOTALS FOR PHASE			42.9	5.0	CRP TOTALS FOR PHASE									0.0	0.0		

F/A-18 PILOT/WSO																		
700 SERIES ORDNANCE TRACKING																		
STAGE	TRNG CODE	EVENT DESC	FLT HOURS	SIM HOURS	REFLY INTVL A/C	REFLY INTVL D	DEVICE	# OF A/C	CONDITIONS	PREREQ	POI A/C	POI D	EVAL	CRP A/C	CRP D	CHAINING	EVENT CONV	
AERIAL SPECIFIC WEAPONS DELIVERY																		
ASWD	700	CIRCULAR GUN PATTERN	1.3		730	730	A 2+			270				0.0	0.0		560	
ASWD	701	FWD QUARTER GUN PATTERN	1.3		730	730	A 2+			700				0.0	0.0		561	
ASWD	702	AIM-9	1.3		1095	1095	A 2+							0.0	0.0		562	
ASWD	703	AIM-7	1.3		1095	1095	A 2+							0.0	0.0		563	
ASWD	704	AIM-120	1.3		1095	1095	A 2+							0.0	0.0		564	
ASWD	705	BANNER TOW	1.3		1095	1095	A 2							0.0	0.0			
			7.8	0.0											0.0	0.0		
SURFACE SPECIFIC WEAPONS DELIVERY																		
SSWD	710	MK-82 / 83 / 84	1.3		365	365	A 1							0.0	0.0		570	
SSWD	711	M61A1 (A/S)	1.3		365	365	A 1							0.0	0.0		571	
SSWD	712	CBU	1.3		365	365	A 1							0.0	0.0		572	
SSWD	713	FIRE BOMB	1.3		545	545	A 1							0.0	0.0		573	
SSWD	714	ROCKETS	1.3		365	365	A 1							0.0	0.0		574	
SSWD	715	ILLUM	1.3		365	365	A 1							0.0	0.0		575	
SSWD	716	CATM AGM-65E	1.3		365	365	A 1							0.0	0.0		577	
SSWD	717	AGM-65E	1.3		1095	1095	A 1							0.0	0.0		579	
SSWD	718	GBU-12 / 16 / 10	1.3		365	365	A 1							0.0	0.0		580	
SSWD	719	CAPTIVE JDAM	1.3		365	365	A 1							0.0	0.0		581	
SSWD	720	JDAM	1.3		365	365	A 1							0.0	0.0		582	
SSWD	721	CAPTIVE JSOW	1.3		545	545	A 1							0.0	0.0		583	
SSWD	722	JSOW	1.3		1095	1095	A 1							0.0	0.0		584	
SSWD	723	CATM HARM	1.3		545	545	A 1							0.0	0.0		585	
SSWD	724	HARM	1.3		1095	1095	A 1							0.0	0.0		586	
SSWD	725	CATM SLAM(ER)	1.3		1095	1095	A 1							0.0	0.0		587	
SSWD	726	SLAM(ER)	1.3		1095	1095	A 1							0.0	0.0		587	
SSWD	727	TALD	1.3		1095	1095	A 1							0.0	0.0		588	
			23.4	0.0											0.0	0.0		
DEFICIENCY TRACKING CODES																		
TRK	730	REQUIRED ORD NA												0.0	0.0		598	
TRK	731	REQUIRED ADV NA												0.0	0.0		599	
TRK	732	REQUIRED RANGE NA												0.0	0.0			
			0.0	0.0											0.0	0.0		
			31.2	0.0											0.0	0.0		